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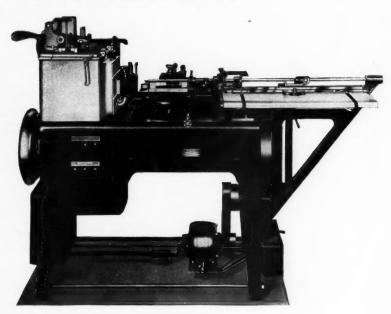


INTERNATIONAL PAPERS

for printing and converting

# The Elrod

Let the Elrod help to increase your production of strip material. Assure your compositors an ample supply of leads, slugs, rules and base material for mounting cuts, shell casts and electros. The Elrod supplies strip material from 1-point to 36-points in thickness—a wide range of product from a single machine. Elrod material is formed in the mold as a continuous strip of metal, cooled and solidified under pressure.



Simple in design and mechanism, the Elrod is a dependable machine, with minimum upkeep costs. It consistently produces a constant supply of material that meets today's exacting printing requirements. The fact that so many printing and publishing plants use only the Elrod for their strip material evidences entire satisfaction with its operation.



ing

The Ludlow All-Slug System is the most direct method of producing job, display and ruleform composition

#### Ludlow Typograph Company 2032 Clybourn Avenue, Chicago 14, Illinois

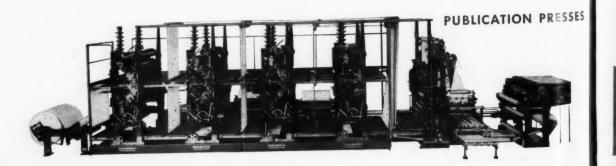
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MAKE THE MOSTOR THE WEBENDORFER

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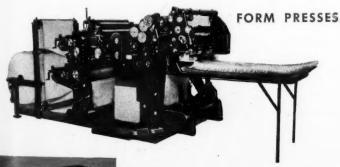
### WEB-FED PRESSES

Are you equipped to get your full share of the steadily increasing demand for web-fed work?

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Ask for your copy of the brochure showing the ATF-Webendorfer web-fed offset presses



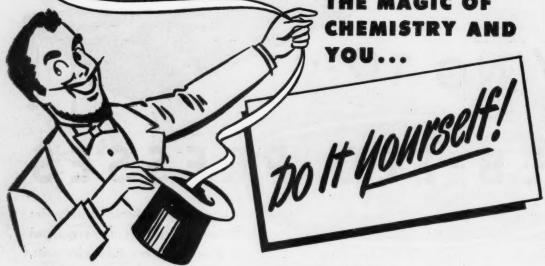


ESSES

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# THE MAGIC OF



The Linotape Dri-Stain Process is a magic and harmless chemical method that enables you to contrast your own mats in your own shop...and at times most convenient to you.

The face of your composing machine mats—and only the face—is
Dri-Stained with a piece of Linotape...applied with uniform, regulated heat.
The result is a long lasting, deep black stain. White, or color, inlay—
to emphasize the mat reference markings—will then provide vivid contrast.

Time and labor savings will quickly offset all costs, whether you "do it

authorized dealer or factory man.

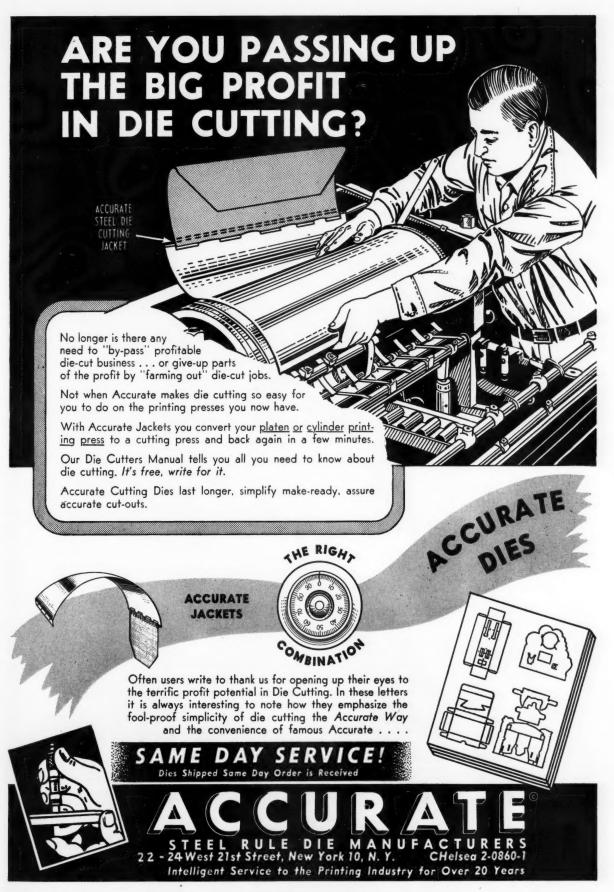
The Linotape Dri-Stain Process is economical to buy and to use. A postcard will bring complete information, including costs.

yourself," or the work is performed by a Linotape

DRI-STAIN

No eye-strain-Less errors "get by."

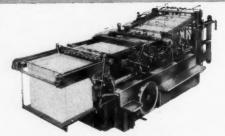
LINOTAPE PRODUCTS COMPANY 1840 LARIMER STREET



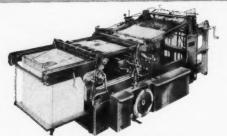
# The Miller Family

New-Modern-Compact-Heavy-Speedy

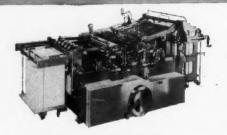
"No other press has so many points of merit"



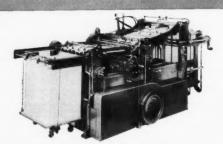
Miller 27 x 41 TY Two-Color New—1950—net weight 27,600 lbs. 3750 sheets per hour—floor space 23'4'' x 10'11"



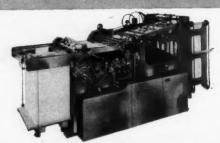
Miller 27 x 41 SY Single Color New—1950—net weight 19,700 lbs. 4250 sheets per hour—floor space 18'2" x 10'6"



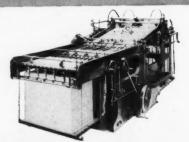
Miller 21 x 28 TW Two-Color Introduced—1948—net weight 15,650 lbs. 4000 sheets per hour—floor space 17'6" x 7'10"



Miller 21 x 28 SW Single Color Introduced—1949—net weight 12,100 lbs. 5000 sheets per hour—floor space 13'9" x 7'6"



Miller 19 x 25 SG Automatic Introduced—1950—net weight 8,050 lbs. 5000 sheets per hour—floor space 11'10" x 6'10'



Miller 28 x 41 CY Cutter & Creaser New—1951—net weight 19,300 lbs. 4250 sheets per hour—floor space 21'9" x 10'6"



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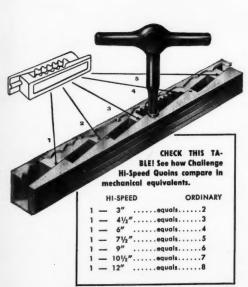
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Why spend valuable time "gathering-up" segments of ordinary quoins? Why use five to eight quoins when just two will do the job?

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# ...thanks to the revolutionary economy of *Consolidated* Enamel Papers

"Extra-fare" quality at lower cost! That's what Illinois Central's switch from old-style premium-priced papers to Consolidated Enamels has meant. One look at the big Centennial Issue of the Illinois Central Magazine is proof positive that Consolidated really delivers top quality at low cost.

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# Consolidated ENAMEL

PRODUCTION GLOSS . MODERN GLOSS . FLASH GLOSS

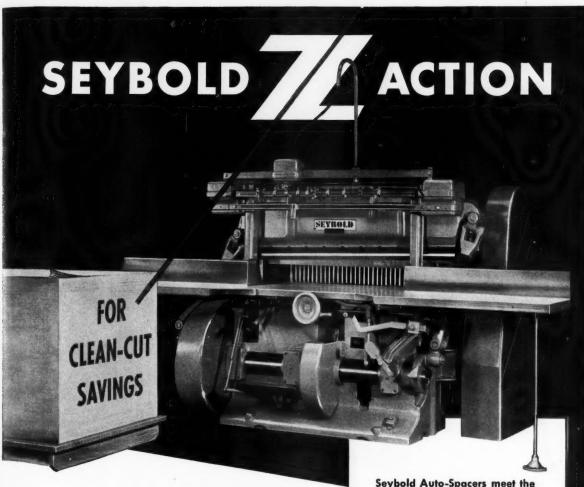
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61

42×58

6500

proof-packaged utility bond. A versatile paper that performs equally well by letterpress printing or by offset lithography, Moistrite Bond is ideal for your everyday printing needs. Mill-conditioned and tub-sized, it comes to you in the famous green

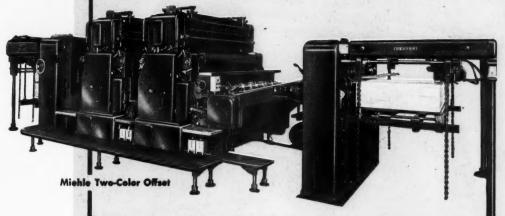


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The Miehle		The Miehle 76
42×58	Maximum Sheet Size	52×76
6500	Speeds Up to	6000

Here Are Some of the Reasons Why Pressmen Prefer Miehle Offsets:

\* LOW OPERATING HEIGHT... with ample working space provided for maximum convenience and easier operation . . . no climbing up and down high platforms . . . these are features that go a long way toward reducing fatigue.

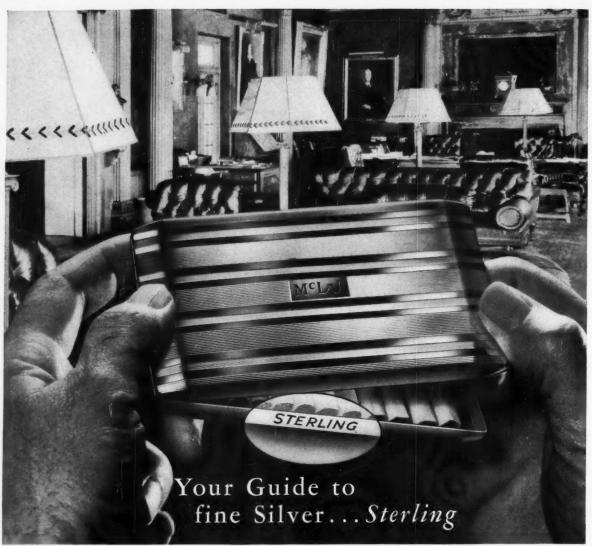
\* EASE OF ADJUSTMENT... assures faster changeover, easier washup and simple, dependable operation ... with idle time held to a minimum.

\* IMPROVED FEATURES . . . these presses incorporate many new improvements in feeding, registering and delivering the sheet - making it possible to translate the high running speeds into unusually high production.

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THE READING ROOM OF THE ALGONQUIN CLUB, BOSTON. Photograph by Nickolas Muray

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Company is your assurance
of superior-quality papers for
printing and packaging
purposes—a name that is
famous throughout the world
for generations of skill and
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Among the wide range of McLaurin-Jones papers, famed for their excellence, are: Waretone, mirrorfinish coated paper for printing, label, box covering, cover and postcard work. Guaranteed Flat Gummed Papers for labels, seals and stickers. Old Tavern Gold and Silver Metallics for labels, box work and printed pieces. Relyon Reproduction Paper for the printing trade. A full line of Sealing Tapes, Stays, and Gummed Cambrics for boxes, cartons, and containers.

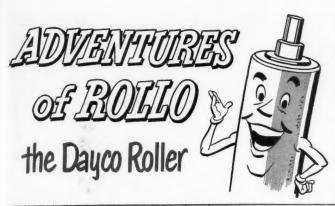
McLaurin-Jones Papers are advertised regularly in NEWSWEEK and BUSINESS WEEK

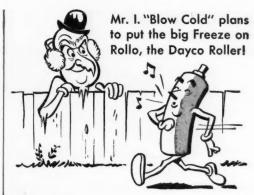
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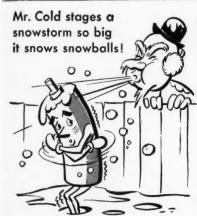
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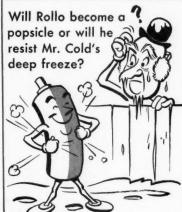
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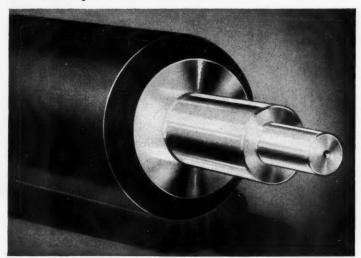








# Daycos never need "defrosting!"



Whatever the weather—sub-zero or subtropical—Dayco Rollers work year round, unaffected by the elements. They have made obsolete the old-fashioned idea that, come winter, a printer had to change over to "winter-type" rollers. There's no need to. Daycos roll in the coldest weather, with no change in tack, softness, or diameter.

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DAYTON RUBBER COMPANY, DAYTON, OHIO

## Daytom Rubber

PIONEERS OF IMPROVEMENTS FOR BETTER PRINTING



# A new way to judge letterheads

Do you print and sell letterheads? If so, then you will want the new Brightwater Letterhead Appraiser Kit. Enables you to show your customer just how a letterhead sketch or design will look when in use. Ensures proper balance between the letterhead and the typewritten letter. Any Brightwater Paper Merchant will appreciate an opportunity to show you this new helpful aid to greater satisfaction on the part of letterhead buyers.



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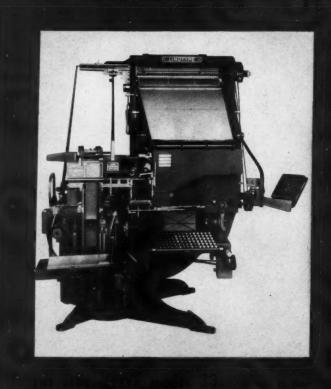
Here they are! Today's

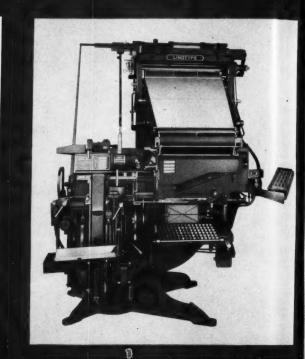
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FOR COMPOSING BOTH TEXT AND DISPLAY MATTER WITH EQUAL EASE AND ECONOMY!



# WIDE RANGE LINOTYPES-MODELS 33, 34, 35 AND 36!





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text f

Solidly ing me tested improve justme mechan

positiv

#### Compose TEXT or DISPLAY Faces with Equal Ease and Economy!

Tested, proven and acclaimed by printers and publishers for years. Wide Range Linotypes have now been newly engineered to help speed production of text and display faces, to make operation easier, and to minimize maintenance. They offer you the extra versatility and production economy that often mean the difference between profit and loss on close-margin jobs. Extra-wide main magazines accommodate small text faces or giant display faces—making these machines the answer to the most stringent composing-room requirements. Progressive newspaper plants meet deadlines and cut costs by routing advertising display, heads and text copy to their Wide Range Linotypes, while many job and commercial shops have found that a single Wide Range Linotype fills all their needs for text and display composition.

#### WIDE RANGE LINOTYPE FEATURES



electromatic Safety System

To guard against machine or matrix damage, the new Electromatic Safety System prevents shifting of magazines until all matrices have been safely distributed. As long as a single matrix remains in the distributor box—or on the distributor bar—an automatic safety latch locks the magazine elevating mechanism. Channel entrance partitions are protected, too—the new hinged upper and lower plates on the channel entrances operate a special circuit of the Electromatic Safety System which locks magazines if matrices remain in the channel entrances. Two indicator lights show green when the magazines are ready for shifting, thereby saving time for the operator. The action of the Electromatic Safety System is instant and positive. When magazines will shift—it's safe to shift them.

#### IMPROVED MAGAZINE ELEVATING MECHANISM

Solidly anchored to the machine base, a new magazine elevating mechanism makes shifting easier than ever. Thoroughly tested for easy operation under all conditions, this Linotype improvement also simplifies maintenance. There are no adjustments to continually check—no motors or complicated mechanisms to service.

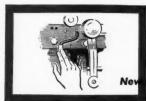


andard Swing-Out Keyboards

Greatly simplified, the new Wide Range Models now use the same keyboards found on all other Linotypes. In only eight seconds, these keyboards swing out for easy inspection, cleaning or servicing. All parts become immediately accessible. Cams lift out without tools. Each rubber roll is released by loosening a single screw. The key bars come free as a unit. The entire keyboard may be serviced while on the machine—there's no need to remove it to a bench.

#### NEW SWINGING KEYBOARD ROD FRAME

On Wide Range Linotypes equipped with both 72- and 90-channel wide magazines, the pivoting action of this frame brings the proper set of keyboard rods into operating position when the operator shifts the new mixing control. There is no intermediate selector mechanism between the keyboard and the keyrods—action is direct—maintenance is simpler.

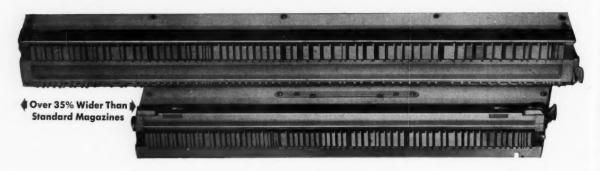


Feather-Touch Mixing Control

For mixing matrices from adjacent magazines on Wide Range Mixer Models 35 and 36, a simplified operating mechanism transfers keyboard action from one magazine to the other at the touch of a convenient lever. Carefully counterbalanced to provide fast, easy selection of type faces, this new mixing device is simplicity itself. Its sturdy, manually-operated mechanism is so well engineered that it functions with the same smoothness and speed as a power-driven unit.

Ask Your Linotype Production Engineer For More Details!

#### wider magazines mean wide-range profits!



The extra-wide main magazines on all Wide Range Linotypes permit larger display faces to be keyboarded with the same ease and economy as the smallest text faces. Here are a few examples that show the large variety of type sizes instantly available on Wide Range Linotypes.

#### FACE RANGE OF WIDE 90-CHANNEL MAGAZINES

6 point Bell Gothic

Text and display sizes keyboarded with equal ease and economy on

8 point Times Roman

Text and display sizes keyboarded with equal ea

10 point Caledonia

Text and display sizes keyboarded with eq

12 point Baskerville

Text and display sizes keyboarded wi

14 point Garamond Bold No.

Text and display sizes keyboarded

18 point Bodoni Bole

Text and display sizes ke

24 point Spartan Heavy

Text and display siz

98 point Erbar Hold Condensed

Text and display sizes k

36 point Poster Bodoni Compressed

Text and display size

ADDITIONAL CAPACITY OF WIDE 72-CHANNEL MAGAZINES

90 point Memphie Bold

Text and displ

36 point Caledonia Bold

Text and disp

42 point Erbar Medium Condensed

Text and display s

48 point Erbar Bold Condensed

Text and disp

AND WITH WIDE 34-CHANNEL AUXILIARY MAGAZINES

WIDE RANGE LINOTYPES SET

60 POINT





Advancement in design of Cottrell equipment includes such developments as the Cottrell washup device which makes press washup a two-minute job per color. Also, with one turn of a handwheel, the pressman automatically throws covered rolls off contact with inkers throughout each distribution, after washup, to preserve the accuracy of the rolls.

These are reasons why printers equipped with Cottrell presses not only produce letterpress printing of the highest quality, but enjoy the profits that come from getting more work done in less time with fewer press units.

Cottrell's advanced refinements are made possible by almost a hundred years of close association with pressroom problems. Let us tell you in detail how Cottrell multicolor rotary presses can contribute to the efficiency

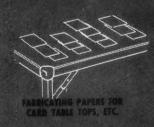
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Westerly, Rhode Island

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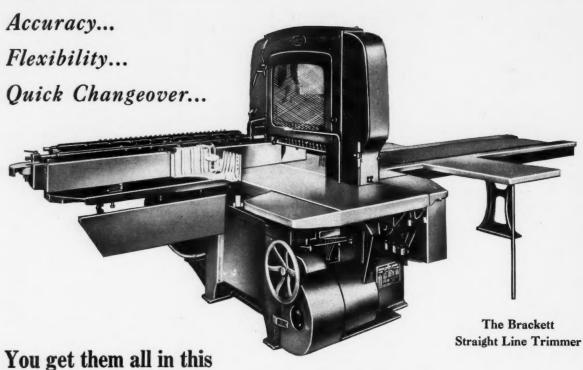




THE SORG PAPER COMPANY . Middletown, Ohio Manufacturers of Printing and Specialty Papers

SALES OFFICES AND REPRESENTATIVES IN
NEW YORK • BOSTON • PHILADELPHIA • CHICAGO
ST. LOUIS • LOS ANGELES

Speed ...



#### STRAIGHT LINE PRODUCTION TRIMMER

- Work flows in a straight line away from the operator.
- He doesn't have to handle either finished work or trimmings. Each moves away from him to rear of machine.
- Waste motion is eliminated.
- Speed of conveyor belt is readily adjusted to fit the job in work.
- Mechanical setting of spacer shaft gives unqualified accuracy. Your run a hundred or a million will be
  precise, right through to the last lift.
- Quick changeover saves setting time. For jobs that repeat, preset gauges may be retained, so that resetting is unnecessary.
- Flexible too the Brackett handles labels, booklets, (singly or in gangs), inserts, covers, circulars just about every kind of flat work—at double or triple the speed of the conventional guillotine cutter.
- Ask us to show you how the Brackett Trimmer can trim your production costs.

#### Dexter • Christensen • McCain

Modern Machines for Printers and Binders

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#### Can you find the "death-trap" in this picture?

EVERY OFFICE has one. Victims flutter into it all day long. Good ideas that, for one reason or another, meet sudden death in the wastebasket.

There's no one way to avoid this business graveyard. But there is simple and inexpensive insurance against one danger. You can print your letterheads on Howard Bond and thus give them a very strong edge in their fight for attention and action.

Fine letterhead bond-Howard BOND, to be specific-has the feel, the appearance, and the subtle crackle that gives letterheads an air of distinction and importance. Its whitest white gives sparkle to your letterhead design. In brief, it puts your best foot forward, lends its influence to what you have to say, distinguishes your business correspondence to a marked degree.

Your printer or paper distributor will show you samples of Howard Bond. In whitest white or any of its twelve clean, clear colors it manifests its excellence and its worthiness to be so widely known as "The Nation's Business Paper."

PRINTERS! This message appears in advertising magazines read by your customers.

HOWARD PAPER MILLS, INC. . HOWARD PAPER COMPANY DIVISION, URBANA, OHIO

"The Nation's

Companion Lines: Howard Ledger • Howard Mimeograph

Business Paper"

Howard Writing • Howard Posting Ledger



#### Another Case for the Careful Selection of Paper

A LOT can and does happen to forms as they are used in business today. They are typed on, written on and erased. They are crumpled in handling. They are stuck on spindles. They are tacked on bulletin boards. They are routed from person to person. Some are referred to many times. Yet, they are expected to

make permanent the exchange of information. MAXWELL BOND withstands this kind of abuse. It handles -and prints-like a fine letterhead sheet. It is thrifty to use. Yet, MAXWELL BOND, watermarked as evidence of our belief in it, costs no more than a less satisfactory paper. Specify MAXWELL BOND for forms.

We'd be pleased to show you samples of MAXWELL BOND'S six colors, four weights and six finishes. Just send your letterhead.

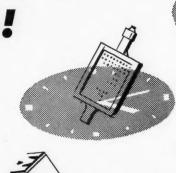
# Maxwell Bond America's Favorite Low-Cost Bond

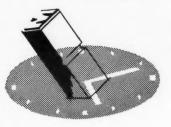
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monotype system saves time!

with a KEY, a ROLL OF PAPER, a MATRIX CASE, a SINGLE TYPE and a HELLBOX!









The new Monotype 1517 Keyboard, with keys for seven alphabets, will compose as fast as the operator can work. At the press of a key, a roll of paper is perforated for each character, and for justification at the end of each line. When the roll is inserted in the casting machine, each perforation selects and positions the proper matrix of the 255 held in the 1517 matrix case. As each position is attained, a single type is cast—clean, new and perfect—and ejected onto the galley in a justified line until the whole setting is completed. After use the type is dumped into the hellbox ... there is never any distribution of type! Corrections are made by hand from type cast for that purpose. Time is saved every step of the way. Write for full information on how the MONOTYPE System saves time in the composing room.



MONOTYPE COMPOSITION CASTER

#### mono type

LANSTON MONOTYPE MACHINE COMPANY . 24th at Locust St., Philadelphia 3, Pa.

The name MONOTYPE is a registered trade mark, and therefore the exclusive property of Lanston Monotype Machine Company, and identifies the products of this company

BRANCH OFFICES: 116 Spring St., N. W., Atlanta 3, Ga. • 170 Summer St., Boston 10, Mass. • 216 W. Jackson Blvd., Chicago 6, III. • 441 Lexington Ave., New York 17, N. Y. • 55 New Montgomery St., San Francisco 5, Calif. • IN CANADA: Monotype Co. of Canada, Ltd., 77 York St., Toronto 1, Ontario, Canada.

(Text in Monotype 20th Century Medium, No. 605J)



IPI • DIVISION OF INTERCHEMICAL CORPORATION • 67 WEST 44th ST., NEW YORK 18 • ADDRESS INQUIRIES DEPT. A



#### MAQUA GETS PRAISE FOR G-E CALENDAR PRINTED WITH IPI PROCESS COLORS

Superb Printing Captures Spirit of Work by Ten Noted Artists

Want a hearty round of applause for your process printing? Then take a tip from The Maqua Company, Schenectady, N. Y. This firm rates high praise for its top-notch printing of the 1951 General Electric calendar with IPI process inks. Ten famous artists, selected by G. E., painted the 12 colorful and widely varied subjects.

Process inks must be especially good to so faithfully capture the spirit of this original art. And they must be extra versatile to cover such a wide range of subjects—from light summer skies to black shadows of a coal mine. No wonder that Maqua, like so many fine printing firms, chose IPI process inks.

These calendars were printed on a Miehle two-color press at 1500 iph. The lucky 330,000 folks who get them will have a full year of visual pleasure and service. Try IPI process inks for best results in your shop—every time.

IPI, Everyday and Gemtone are trademarks of Interchemical Corporation.

#### FINE ARTS PRINTING WITH EVERYDAY INK RIVALS GRAVURE QUALITY, TONE, DETAIL

Garrett & Massie Produce Superb Healy Catalog for Virginia Museum

At first glance you might say "Healy's Sitters" is excellent gravure printing. It's hard to believe that this fine booklet was produced by letterpress. The black & white halftones—some as small as  $1\frac{1}{2}$ " x  $1\frac{7}{8}$ "—catch the smallest details of even life-size, full-color paintings.

Garrett & Massie, Inc., of Richmond, Virginia, needed no special ink formulation for this booklet. They printed it for the Virginia Museum of Fine Arts on a Miehle 00 with Everyday Dull Halftone Black.

Everyday Dull Halftone Black is one of eleven fine Everyday blacks. And outstanding craftsmanship, like that which produced "Healy's Sitters," demands exactly the right ink. That's why wise commercial printers stock a good variety of Everyday blacks. Then they're ready for



any job with the black best suited to it.

Here are three good things to do: 1. Place a trial order today for Everyday blacks and colors; 2. Write to IPI for free color card showing Everyday's complete selection of 25 colors; 3. When in Richmond, visit the Virginia Museum of Fine Arts—see the work of George Healy, one of America's greatest 19th century portrait artists.

#### "GEMTONE INKS JUST WON'T CRYSTALLIZE" "GIVE SNAP AND SPARKLE," SAY PRINTERS

"Your Gemtone Process Inks are wonderful! They just won't crystallize," says one printer (name on request) who waited six months after printing the first two colors of a job to add the other two. He proved that Gemtone Inks still trap per-

fectly even after long periods! "Gemtone Inks sparkle," says every printer who uses them. Gemtone Inks give sparkling, lustrous color results every time because they're made to dry on top of the sheet. They dry fast, without heat, on sheet-fed presses. And printers tell us they get better mileage with Gemtone Inks since they stay on top of the sheet where they belong.

Compare the new IPI Gemtone Process Inks with conventional inks and you will buy Gemtone. Send today for the free Gemtone Comparison folder. Ask your IPI salesman or write us at IPI Headquarters, 67 West 44th St., New York 18, New York.



Kodak

There's a story behind this picture

SEE THE OTHER SIDE.

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OF THE MATTERHORN WAS MADE

From original Kodak Ektachrome



transparency, scanned

separation negatives were made on Kodak



Film. Continuous-tone separation positives were produced by con-





Using the Kodak

Process Ektar Lens.



f/10, with Shutter, 18" focal length,

halftone negatives to size were made



on Kodalith

Transparent Stripping Film. Kodak



Screen rulings were



120 for yellow-133 for "red," "blue," and black. The

screened insert and the Kodak corner curl were inserted



using a blueprint separation on glass as guide. Kodak Pack-

aged Chemicals



were used throughout. From copper

originals, nickel-faced electros were used for printing



single color dry, with process gloss inks on 80-lb. #1 coated stock.

GRAPHIC ARTS DIVISION, EASTMAN KODAK COMPANY, ROCHESTER 4, N.Y.

Kodak







# PLAN FOR QUALITY

The impressions you make with printing

may last for years. Plan your work so

that it will always be a source of pride.

(1) Coated Papers

THE MARTIN CANTINE CO. Coated Papers exclusively since 1888 Saugerties, N. Y., New York, Chicago

ZENA CATSKILL TONE
PUS TINTS
PUS POSTCARD

Offset-Litho

HI ARTS LITHO C.IS. ZENAGLOSS OFFSET C.2S.

J. L. Frazier, Editor

# Fairchild engraver does quality work utilizing plastic cuts

Foresee the end of limitations which confined the process to 65 and 85-line newspaper reproduction

### By Ranald Savery EASTERN EDITOR

• A RECENT CATALOG published by the Metropolitan Museum of Art in New York made news in the graphic arts as well as the fine arts. The reason? Black-and-white halftone reproductions of full color paintings printed in the catalog—fifty-two of them, ranging in size from three-by-five inches to six-by-seven—were all made from engravings on plastic, manufactured with the Fairchild 120-line photo-electric engraving machine.

In commenting on the catalog, the editor of publications of the Museum said to the printer, "I want to tell you that many people in a position to judge such work have commented with favor and real interest on the catalog plates."

The fact that quality work can and has been done with the Fairchild engraver points to a beginning of the end of limitations which for-

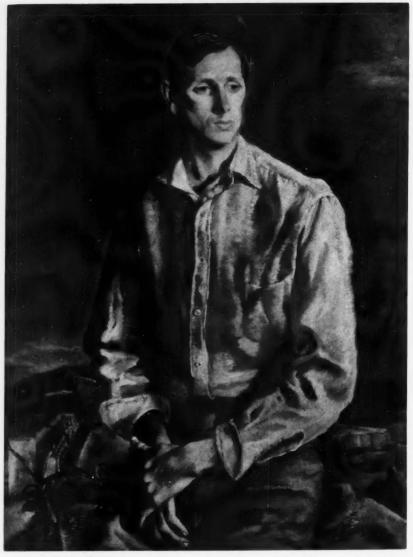
merly confined the process to 65-line and 85-line newspaper reproduction. The art catalog was not the first piece of commercial printing to utilize photo-electric halftones. Early last fall, an issue of Magazine Industry, printed by the Deposit Courier Company, Deposit, New York, contained a number of photographs engraved by the Fairchild process. Swift Printing, Incorporated, New York City, where the Metropolitan Museum catalog was printed, is using these plastic cuts extensively. Hudson Press, also in New York, printed all the halftones in an issue of a customer house organ from Fairchild-produced plates, and plans to continue doing so.

The 120-line engraver operates on exactly the same principles as the earlier 65-line and 85-line machines. An electronic eye scans the original copy, transmits the impulses to a heated stylus which etches the dot formations of the engraving on the plastic sheet. Maximum size plate

that can be turned out—eight by ten inches—requires an hour's time to complete. Commercial advantages of the plates are speed and economy of manufacture, and comparative operating simplicity of the engraving process. Once the copy is fastened to its cylinder, a few adjustments made, and the machine started, the operation proceeds automatically.

No claim is made at this stage of development that fussy jobs such as the museum catalog can be turned out as routine procedure in any printing shop. The Swift printing plant is a sort of commercial laboratory where printing from plates is observed and aided by Fairchild engineers. This plan of operation was initiated by Clark W. Minor, formerly president of the International General Electric Corporation, who is now chairman of the board of the Deposit Courier Company.

One of the 120-line machines is installed in the Swift shop, with Clayton Spicer in charge. He makes



"Young Man from Arkansas," by Jerry Farnsworth, courtesy of the Milch Galleries, printed from a plastic cut used for the Metropolitan Museum of Art catalog mentioned in accompanying article

plates for commercial customers, demonstrates the engraver, and assists in the platemaking phases of the work which is being done in the pressroom.

Head of press operations is Dave Kaufman, a highly regarded pressroom man with forty-four years of shop experience. Mr. Kaufman sums up the performance of the plastic plates as follows.

For one thing, he says, the plates are exactly level in their own structure. It has been his experience that even the best of metal plates may often vary in height throughout their surface. With plastic plates, the only leveling he has to do is to correct inequalities in the height of the block. On makeready, he has found there is a slight resiliency in

the plastic which helps compensate automatically if the cylinder packing is too low or too high. Edges, he says, do not cause the trouble so often encountered with metal plates. A machine saw edge with a slight hand file finish is sufficient, and eliminates all hard edges. He has used plastic plates successfully in patent base lockup, mounting them on tempered fibreboard.

As to quality of reproduction, Mr. Kaufman points to the clean backgrounds in the photographs. When properly handled in makeready and during the run, the gradations in tone of the light and dark background areas are smooth—no spottiness or graininess. Mr. Kaufman further states that the plastic has a natural affinity for ink, particularly

the drying oil ingredients. Less ink is required for the impression—a factor that may be responsible for the darkened appearance of some plastic plate printing where a normal spread of ink is used. Runs of 80,000 impressions or more have been recorded from original plastic plates, quality of reproduction holding up well throughout.

The engraver is a compact piece of machinery which comes mounted on a metal cabinet housing one section of the electronics equipment, as well as storage compartments. The complete unit occupies about eleven square feet of floor space. Operating parts consist of two cylinders mounted on a common shaft, an engraving assembly, scanning assembly, gear housing, and dot spacing generator. Scanner is on the right, engraver on the left, controls in the center. Copy is an ordinary photo print, made to specified reproduction size by a photographer, either from original negative or positive print. (The engraver works on same size copy only.)

If retouching is customary on specific types of jobs, it is done as usual for the Fairchild process. Copy may be a single print, or it may be several, ganged up and fastened together with narrow adhesive strips to fill out the maximum 8 by 10 size in one piece. Cropping can be done simply by cutting the print to dimensions desired, or by masking.

To make an engraving, the operator first inserts the stylus in its holder, then switches on the current to generate heat for the stylus. While the stylus is heating, copy is fastened around the scanning cylinder, and plastic plate material clamped to the engraving cylinder. Through a microscope attachment, the operator then sets the machine for tone control, viewing the dot formation through the glass. The scanner eye is placed over the darkest tone of the photo, and the controls manipulated until the dot formation registers cleanly and steadily. Same thing is done with the lightest tone. (Mr. Spicer has found he often gets the best results by registering control against solid black and solid white, regardless of the photo tones.)

When the dot formations are set, scanning and engraving machinery is switched into motion. The cylinders rotate simultaneously, the scanner transmitting electronic impulses to the stylus, which forms the engraved image on the rotating plate. From here on, the operation is automatic until all of the engraving is completed.

After the plate is removed from the engraver, individual halftones are cut apart and squared with a standard print trimmer. They are mounted to type-height on blocks either wood or metal—with doublesurfaced scotch tape. Because the thickness of the plastic plus the tape is not as much as photoengraving

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types, plastic plates are handled in two different ways. They may be locked up with the type form in normal fashion for matting and stereotyping. Or the space for the photo can be blanked out in the form, and the plastic plate itself adhered into the blank after the form has been stereotyped.



Fairchild Camera and Instrument Corporation's new photo-electric engraver, officially named the Scan-a-graver, is shown in this illustration, which is printed from a plastic cut engraved by the Scan-a-graver. John Boyajean, Fairchild engraver who worked on development of the 120-line screen engraver from its beginning, is shown examining the first magazine to use Fairchild plastic engravings throughout the issue—"Magazine Industry"—at Swift Printing, Incorporated, the first letterpress house in New York City to install this Fairchild engraver, which is suitable for producing halftones for magazine use. Displayed in the background on the wall are proofs pulled from Fairchild engravings. Cuts on these two pages used through the courtesy of Fairchild

metal, basing block must be higher than normal. Mr. Kaufman specifies base height of .888 to .890, although it can be as high as .895. Some pressmen, including Mr. Kaufman, prefer the plastic plates to be slightly less than type-high, underlaying, if necessary, on makeready.

In the newspaper field, the 65-line and 85-line Fairchild machines have found wide acceptance, particularly among small dailies and weeklies bucking competition from nearby metropolitan papers. Upwards of 400 of them are currently in use. Publishers are able to use more pictures and convert them faster for printing at a decidedly lower cost. In newspaper printing from stero-

The Fairchild machines are distributed by the manufacturer on a rental basis, which includes installation, operating instruction, and servicing for the life of the contract. Company engineers will come right into the pressroom, if desired, to aid in ironing out problems of makeready and printing reproduction. The manufacturer also acts as supplier of the plastic plate material and the styluses.

As with anything new, it requires a certain amount of instruction and pressroom experimentation. Once the pressman has gotten the feel of handling the plates, and has worked out his own methods of operation, good results can be obtained.

#### **But Is It Typography?**

• "HAY-WIRE TYPOGRAPHY" which sacrifices readability for the artiness of pure design was treated to a critical smacking during a Printing Week session in New York. The smacker was Laurance B. Siegfried, one of the judges for the Eleventh Exhibition of Printing, sponsored by New York Employing Printers Association, on display in January.

The session in which Mr. Siegfried let loose his blast at arty design was a forum headed by the Exhibition jury panel. Purpose was to discuss trends and developments in printing, typography, and design, based on the reactions of the judges to 1,100 pieces of exhibit material.

Mr. Siegfried pulled no punches in warning against dangers stemming from the increase in stunt typography. He pointed out that this school of design, by reducing readability or sales effectiveness of the printed word, tends to destroy a basic function of printing—a tendency, which if unchecked, eventually could lead to a decrease in use of printing.

As an example of what he meant, Mr. Siegfried described a department store advertisement run recently in a New York newspaper. The type in the ad, he said, had been screened to give it a gray appearance. What's more, it had been set in all lower case, then letter-spaced. Prices included in the ad were accorded similar treatment, with the result that the typography violated three basic advertising rules-it had no impact; it was not easy to read; it did not clearly convey important information. What it did do, Mr. Siegfried continued, was to present a page that possessed excellent color and shape from the designer's point of view-or a triumph of art over function.

Type is meant to be read, he concluded. Any typographer who succumbs to temptation of minimizing readability and sales effectiveness through undue emphasis on the art appeal, is flouting basic concepts of his calling.

So-called modern or contemporary typography and design can be extremely effective if soundly carried out, it was noted by George Welp, chairman of the Exhibition jury. He commented that there was a noticeable trend away from the classic or traditional in favor of the modern among the printed material entered for the competition. One of the chief values in good contemporary design, he said, lies in its flexibility and its appealing informality.

# PRINTING

# WEEK

# across the

# CONTINENT

A. F. Oakes (right), president, New York Employing Printers Association, cuts ribbon opening New York Printing Week. Also holding ribbon is William P. Gleason, Craftsmen club president ● THE ENTIRE graphic arts industry joined talents and trades to pay tribute to the constructive role printing plays in our civilization and to honor the 245th anniversary of the birth of Benjamin Franklin, who was born January 17, 1706.

Importance of printing as a threebillion-dollar industry, as a builder of national prosperity, and as a vital force in our national security was emphasized in large scale observances from coast to coast. The public relations program benefitted buyers as well as sellers of printing.

The International Association of Printing House Craftsmen helped to start the ball rolling with its poster stamp contest. Printing Industries of America and the International Graphic Arts Educational Association also gave valuable co-operation and support to the week's activities.

Headed up by elaborate programs in New York and New England, Printing Week, 1951, was observed January 14 through January 20 with a wide range of activities throughout the East. Graphic arts organizations in the printing centers united in an effort to demonstrate the strength of the printed word and picture, and their great contributions to the community, to business and industry, to education, and culture. With Greater New York's activities extending to the Connecticut line, and the down-easters covering clear through to Maine, the top slice of the seaboard did a big job.

New York's program was carefully outlined with the support of all printing, publishing, advertising, and educational groups. A big dinner on Monday evening sounded the keynote, with Mayor Impellitteri scheduled for an address. John J. Deviny, Public Printer of the United States, was chairman of

the affair. George Welp, chairman of the board of judges for the Eleventh Exhibition of Printing sponsored by New York Employing Printers Association, spoke on "Printing meets the challenge." The Exhibition itself, consisting of selected examples of quality work done in all processes, was shown at the Biltmore Hotel, where the dinner took place.

A forum on "the dynamics of the printed word" was held Monday afternoon, led by a panel of printing buyers and users to explain the purposes and accomplishments of printing in terms of commerce, education, and the transmission of ideas.

A Share-Your-Knowledge Roundup was Tuesday's big event. Fifteen tables, headed by specialists in all aspects of production and processes, held open discussions, and answered questions. Subjects covered were planning and preparation, composition, electrotypes, plastic plates, rubber plates, engravings, paper, letterpress, offset, silk screen, collotype, gravure, binding, mounting and finishing, and distribution. In the evening, another panel discussed the material on display in the printing exhibit, the speakers being members of the exhibition jury—Mr. Welp, George B. Dearnley, O. Alfred Dickman, Laurence B. Siegfried, and Maubert St. Georges.

On Wednesday, Benjamin Franklin's birthday anniversary, the annual ceremonies at City Hall, and at the Franklin statue, were conducted, and broadcast by radio. In the afternoon, four printing workshop studies showed how four major pieces of printing are planned and produced—direct mail, a book, a catalog, and a magazine. The evening was devoted to another panel discussion on "What's ahead for print-

ing production?"



George Welp, of International Printing Ink, addresses New York Printing Week Dinner

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Educational activities included open house all week at the New York School of Printing, a number of discussion meetings for school board executives, special programs at the School, the Wayzgoose reception for printers and suppliers, and participation in the luncheon of the International Franklin Society.

Special effort was made to gain the interest and attendance of printing buyers and users. Much of the program was planned for their benefit.

In New England, five sponsoring organizations and sixteen co-sponsors throughout the area united in an ambitious program centering in Boston. Governor Dever of Massachusetts started things off Monday morning with a reading of the official proclamation of Printing and Publishing Week of New England. On Tuesday, two big exhibits opened—one of equipment, the other of selected quality printing, to continue for four days. Another exhibit consisted of the work of Rudolph Ruzicka, sponsored by the Society of Printers.

Also on Tuesday, the Advertising Club of Boston held its annual Printing and Publishing Week luncheon. On Wednesday, Boston's mayor, John P. Hynes, led ceremonies at the Franklin statute at City Hall. The annual banquet, big social event of the week, was Thursday evening, with leaders from the graphic arts to speak.

As in New York, the New Englanders planned their program to interest and attract buyers of printing, in order to emphasize the facilities and services available throughout the area.

In Philadelphia, the industry affair was a dinner on Monday evening, while a series of programs on radio and television, and in schools, libraries, and the auditorium of Printing Industries of Philadelphia, provided attractions for the public. Printing Week posters were printed to appear on delivery trucks of all graphic arts firms.

The dinner on Monday evening featured two speakers. One was Paul W. Dorst, consultant to the Graphic Arts Industry of Cincinnati, with the subject, "The roles of science and engineering in the graphic arts." The other speaker was Earl Prevette, a star insurance salesman, who talked on "How to create more sales and build a larger income." Showings of industry films, open to the public and student groups, as well as members of the graphic arts industries, were held by Printing Industries of Philadelphia throughout the latter half of the week.

National Printing Week in Atlanta was the official name of the observance in that city, sponsored jointly by the Printing Industry of Atlanta and the Club of Printing House Craftsmen, and given a send-off with a proclamation by the Mayor. Focal event was the banquet on Thursday evening, bringing

Richard Pomerantz presents print to James Spillan, president of the Poor Richard Club



The week of January 14-20 was designated Printing Week in civic proclamations and observed throughout entire continent with ceremonies in public, private, commercial institutions commemorating Franklin's birthday and honoring the industry





together members of the printing organizations, the Advertising Club, and the Art Directors Club. Speakers included representatives from business, education, and city government.

A cash-prize essay contest was conducted in the schools, the students writing on the subject, "The contribution of printing to my life." An exhibit of fine printing was sponsored by the Craftsmen, and there were several displays of equipment on view throughout the business area of the city. Newspapers carried feature articles on various aspects of Atlanta's printing industry, while radio stations donated time for the special programs. Posters and mailing stickers carried the message of the week to business houses. Public displays of famous Bibles were featured on Sunday, January 14, with several church pastors making special mention of the contributions of printing to religion and the spiritual life of mankind.

Theme of the whole program was to emphasize the role being played by printing in general, and in particular to the business, educational, and social life of Atlanta.

In Washington, D. C., an exhibition of printing, and a Printing Groups Banquet were highlights of the week. A Franklin luncheon also was held, with special attention being paid to printing buyers and customers as guests. The U. S. Treasury Department displayed a special exhibit of counterfeit monies. Printing Week posters were prepared for windows and trucks of graphic arts establishments.

Colonel E. W. Palmer, president of the Kingsport Press and past president of the Book Manufacturers' Institute, addressed a luncheon in the Mayflower Hotel, Washington, D. C., on January

Portland, Oregon, Printing Week group. Girl is Patricia Hall, "Miss Printing Week." Tomassini is in center at Printing Week dinner



Dr. H. Sommers was guest speaker at Chicago graphic arts education dinner meeting

15. The hotel was the scene of the other big event in our nation's capital during the Printing Week observances, an address by Edwin R. Butler, assistant managing director of the American Forest Products Industries, at a January 19 dinner meeting.

The Baltimore Craftsmen and the Graphic Arts Association, under the chairmanship of Lloyd J. Ford, obtained television announcements and also a number of industry films which were screened at organization meetings as well as school gatherings during Printing Week.

In promoting the twenty-third Annual Printing Education Week, the International Graphic Arts Education Association issued four promotional blotters calling attention to four of the better known statues of Franklin located in various parts of the country and abroad. The blotters and additional gummed stickers bearing a likeness of Franklin are the work of students of Timken Vocational High School, Canton. Ohio.

Large billboards in Seattle, Washington, area publicized the week. Letters were mailed to libraries, churches, and schools as well as voluminous printed material distributed to printing and allied industries. Printing plants and supply firms held open house. Luncheon clubs heard five-minute speeches on Printing Week. The Seattle committees each year do an outstanding job of outlining and plan-

ning the celebration.

Printing Week observances enlisted the co-operation of a wide variety of California civic organizations, commercial and industrial concerns, schools, libraries, and museums. Senior and junior chambers of commerce gave valuable assistance. A leading part in the entire program was played by that Craftsman-public relations man, artisan Amadeo R. Tommasini, who said "We believe that an industry that ranks fifth in importance in the nation (and is first in San Francisco) should tell its story to the public. It should invite the public to view its production centers and to explain the progress the art of printing has made since the days of Gutenberg.'

Paul Billinger was honorary chairman of San Francisco's Printing Week. Car cards, television and radio programs, and a wide variety of printed promotion brought the story to this city of fine printing. J. Homer Winkler, Batelle Memorial Institute consultant and first vice-president of the Craftsmen association, spoke before the city's Craftsmen Club at its January 15 meeting. Mr. Winkler also was the principal speaker at the Second Annual Graphic Arts Banquet held in Los Angeles later in the week.

Miss Printer's Devil in the person of a Hollywood actress was that city's contribution to the festivities.

San Francisco's Press Club had a "gang dinner" on January 12 honoring Printing Week, and the Employing Printers staged its Franklin Birthday Dinner under the guiding hand of Louis Ireland.

Mayor Bert E. Geisreiter of Sacramento signed a proclamation honoring the week, and Tom Hislop, first vicepresident of the Pacific Society, was the main speaker at the Sacramento graphic arts banquet which climaxed the week's events.

Vancouver and Victoria, in British Columbia, welcomed Mr. Tommasini as speaker of the evening at dinner meetings that demonstrated the international aspect of this public relations for printing program.

Governor J. Howard Pyle of Arizona also issued a proclamation and a number of speakers addressed service clubs in Phoenix, Arizona, during the week of January 14 to 20.

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Going across the continent, printers over the Carolinas had displays, newspaper publicity, talks before service clubs, spot announcements on the radio, plant tours and school lectures to demonstrate pride in the graphic arts.

There is widespread opinion that the printing industry warrants yearround promotion. Allerton H. Jeffries, past president of PIA, at the last convention of the association pointed out that excluding publishing, the commercial printing, offset lithography, intaglio, steel engraving, and gravure industries produced a total product of \$2,600,000,000 in 1947. The figures do not include the graphic arts machinery industry nor the folding box industry nor other converting industries. The 1947 Census of Manufacturers also states that the printing industry is third in number of establishments, and eighth in value added to manufacture (\$4,269,000,000).

An Eagle-A miniature paper machine, property of American Writing Paper Corporation, was displayed in the Ohio State Archaelogical and Historical Museum auditorium from January 13 through 20 at Columbus, Ohio.

The Sixth Educational Graphic Arts Exhibition remains Chicago's major public relations job of the year for printing. As the result of a survey of apprentice needs, an educational dinner meeting was held on January 18 at which Dr. Hobart H. Sommers, in charge of vocational education in the Chicago Public Schools, was the main speaker. The Old Time Printers Association had a dinner dance and placed a wreath on Benjamin Franklin's monument in Lincoln Park. The local



Members of Old Time Printers Association placed wreath on Ben Franklin statue in the Lincoln Park tributes of Chicago's printers. Chicago Tribune photo



printers' organizations and the allied graphic arts groups also publicized Printing Week.

Up in Minneapolis, Minnesota, Printing Week was a success through the co-operative efforts of the Graphic Arts Industry, the Twin City Employing Printers Association, the Northwest Daily Press Association, Minnesota Editorial Association, Twin City Photo-Engravers Association, Northwestern Paper Trade Association,

Minneapolis Typographical Union Number 42, Printing Pressmen and Assistants Union, Bookbinders and Bindery Women's Union Number 12, Twin City Litho Club, Advertising Club of Minneapolis, Minneapolis Trade Composition Association, Amalgamated Lithographers of America, Photo Engravers Union Number 6, Newspaper Guild of Twin Cities, Electroptypers Union Number 97, Stereotypers Union Number 16, and Mailers Union Number 4. A dinner dance was held on January 19 at the Nicollet Hotel. Miniature Printing Week posters appeared on printers' invoices and envelopes. Minneapolis plans to make Printing Week a continuing venture to be improved in future years.

Oklahoma City celebrated its National Printing Education Week under the direction of Don Bennett. Members of the Printing Industry of Oklahoma City spoke before groups during the week about the importance of printing and Central Printing School held open house to demonstrate the printing processes. Reasons why students may well choose printing as a career were presented.

"Not until printing came could learning knock at every man's door" wrote Cornelius back in 1546. Printing, the link between ideas and action, is the mother of progress. We are grateful that in America the power of the printed word is held in the hands of the people.

## Keep in the Black

# Business Management

Ten suggestions for you to maintain topflight efficiency in

a war economy even when beset with higher taxes and costs

#### By A. C. Kiechlin

• WE'RE BACK in a war economy again, with higher taxes and higher costs on the agenda, the likelihood of controls of one kind or another. and shortages-all ganging up to put the squeeze on profits and making it necessary for the printer to manage his business with topflight efficiency in order to keep in the black during this hectic period. No one can predict what the outcome of our defense program will be. It is wise to be prepared for any emergency. These suggestions will help the reader keep "heads up" in these dubious times.

1. According to the Consumer's Price Index for 1939, the dollar was worth 100.2 cents. In 1949, a war intervening, it was worth 59.1 cents. This should indicate a further decrease in the value of the dollar as we extend our defense efforts to greater proportions. If the dollar continues to decline in value, liquidate your fixed indebtedness, if possible. In this field, mortgages on business property are in this category. They were incurred with the higher priced dollars. Pay them off with cheaper dollars. The reader will also cut interest expense by paying off his fixed liabilities. He needs every operating economy that he can scrape up to get through this critical period with a profit.

Keep the ratio of receivables to total sales in the safety zone. If we return to a seller's market, if the dollar decreases in value, there will be a tendency to grant credit more freely on the assumption that money will be comparatively easy to get, hence the hazard of loss through nonpayment of receivables will theoretically be negligible.

Through good

There are two hazards here, even if the debtors pay. You freeze a bigger portion of your working capital in outstandings, which you will carry over unto the inevitable day when our economy takes a U-turn, as all economies do in time, and then money will tighten and you'll have an abnormal amount of receivables on your hands that will be hard to collect or be uncollectible. Eventually, you'll write off a big percentage of bad debts, which will reduce your net worth considerably, and may cripple your working capital.

Secondly, even if you collect your accounts promptly as an inflationary spiral soars, you get back cheaper dollars than you gave for the jobs you sold. You can't replace merchandise or labor with the dollars you passed to customers on credit. For this reason, get your collections in as fast as possible to beat the decrease in dollar value so that you can buy approximately as much replacement materials and labor as you gave to the credit customers who paid you.

3. Keep enough "seed money" on hand to meet business requirements. There is a tendency to stock up heavily at times like this. If you do stock up, make sure that you have the funds to pay because the American Bankers Association has advised all bankers to restrict credit where it

appears that the business men are hoarding goods. This means that you will have to pay for what you buy with your own money. It is unwise to shorten your liquid funds to such an extent that you can't pay wages and other operating expenses. This will cost you many of those lush commercial discounts.

If you don't pay suppliers promptly, they may refuse to sell you anything more on credit. They can't afford to, because they will have trouble getting bank loans also if they tie up too much of their liquid funds in receivables. The bankers' determination to prevent hoarding and to minimize inflation applies to suppliers as well as to you. Then too, the government is cracking down on credit, which indicates that, despite increased spending in a war economy, there will be a tighter rein on credit than there has been since the last war ended, hence you should "follow master" and instead of loosening up on credit, you should tighten up on it during this hectic period.

Check on your working capital or "seed money" monthly. See that the current ratio is better than two to one during this war economy—\$2,000 in current assets for every \$1,000 in current liabilities represents a current ratio of two to one. When your books show better than this ratio, you should be in a good liquid position today and not overbuying haphazardly.

4. Keep swinging the axe on tax. Stiff as the income tax rates have

been, they will increase as time goes on. Every dollar saved on tax will represent the net profit on \$20 worth of business, figuring the net at 5 per cent of sales. The printer who can net 5 per cent pocket-profit on sales from now on will have to do a topflight job of business management. With higher taxation, even if costs remain the same, the "takehome" net will be lower than it has ever been before. To keep on the black side of the ledger, the printer must take every legitimate deduction he can get. To do this, he must consider tax an all-year-round expense that bears continual watching the same as job costs and overhead. He can no longer consider tax expense an unpleasant chore that must be wrestled with only around the fifteenth of March each year.

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5. If you need fixed assets, business property, equipment, fixtures, et cetera, and your working capital is more than you need, in other words, some of it is "sleeping capital," then buy with lower-priced dollars. Even if you have to buy on credit, you beat the gun in an inflationary period. If the dollar drops between the time of purchase and the time of payment, you pay with cheaper money. When the value of the dollar moves upward again, which it should do eventually, you win.

6. If the materials become scarce through restrictions, if the dollar goes down in value, the monetary worth of your stocks will increase. With stocks scarce and high in dollar value, printer is under greater compulsion to keep stock control records because stock losses through damage, errors, spoilage, and theft will be more costly than in periods when the reverse is true. Few printers keep stock control records. In the hectic period ahead, losses on inventory may run mighty high if stock control records are lacking.

7. Costs in percentage to sales will be as unstable as a weathervane in a hurricane in the days ahead. Keep job records, costing each job for time, materials, and overhead. Check costs after completion against estimates or experience figures. If materials or labor costs increase, see that these increases are reflected in the job costs immediately so that when you estimate, you can quote customers a price that will assure a reasonable net.

Make a shop tour as often as possible. Often the eye can catch lossleaks that may otherwise go undetected for some time, even if you keep your operating figures under

close surveillance. Keep mechanical equipment in good working order. This cuts down repair bills and time out for repairs, often mighty costly in printing plants. If a war economy is under way for a protracted period, controls and shortages will leave but one road open for economies—better control of manpower, materials, machines, and methods.

8. Put your accounting system on the carpet. If it needs an overhauling, do it now. This is not only to make sure that you record your operating figures accurately, but to bear witness to your true costs if price control officials have reason to ask for this information. During the last war, price control was frequently revised to cope with increasing costs, but the business man had to justify his increased prices by his records. If his books were inadequate or badly kept, he often was turned down when he appealed for the right to increase prices. This may happen again to the fellow who has a slap-happy bookkeeping system. Put yours through the wringer now. Bookwork, on the whole, is not too good in the printing industry, particularly among the small and moderately sized plants. The printer will lose a lot of money for the duration of this war economy if his books are not up to par. He had better do a good housecleaning now.

9. Check closely on unproductive labor to keep it at minimum. It is a big loss hazard at a time like this. From your time cards and production records you can determine how many hours are spent directly on output. From your payroll account you can determine what you actually paid for productive labor. The difference is unproductive labor. All costing experts contend that as a plant approaches peak capacity there is a tendency for unproductive labor to increase and under such conditions it should be watched carefully. This is the main reason why peak capacity is never the most profitable capacity where labor is used to process a commodity, whether shoes or printing.

Nonproductive labor is labor you pay for but do not get because the workers "soldier," do unsatisfactory work; or management, in general, is below par and does not keep scheduled production moving along in the most efficient manner. Sometimes poor mechanical equipment is a source of high nonproductive labor because it breaks down often, causing bottlenecks in production and expensive delays. The payroll keeps increasing but not production.

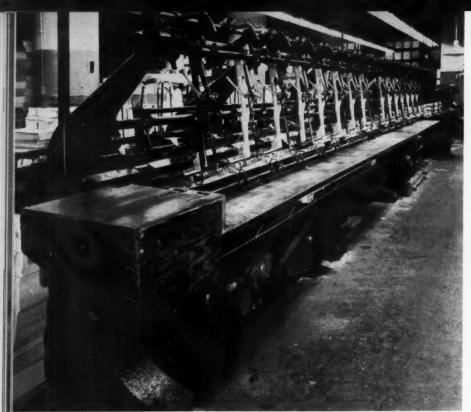
Such time should not be charged to output. The printer who lacks production records is likely to lose much on unproductive labor because he can't control it as well as a printer who records the time spent on production against the output as shown on the daily or weekly production reports.

10. Prepare a profit and loss statement monthly. More than 90 per cent of printers, according to a recent survey, prepare statements covering periods longer than one month. They are vulnerable to losses that could be prevented with monthly analysis. The printer should keep job records and check his costs against standards or his experience figures daily or weekly. If the costs of labor and materials increase, he should see that these increases are reflected in his job costs immediately. Any increase in the overhead percentage to sales will show on the monthly profit and loss statement and such increases should be noted when estimating subsequent jobs.

Those who prepare statements over periods longer than one month are sticking their necks out at a time like this because they work on overhead ratios that may be too low and they do not know it until the next statement is prepared. In the meantime, they have lost considerable money. This explains why printers are often disappointed with profits when they assumably have been using satisfactory overhead ratios in computing their costs or quoting estimates. The galloping overhead tramples down their net. Despite the desire of the government to freeze prices and wages, both push upward in war economy. A printer must therefore watch his operating costs far more intently today than at a time when there is no shooting war on.

Getting out of this war economy with its attendant inflationary spiral without having your profits shot full of holes demands the best in business management. Sales will not be hard to make in a war economy, but earning a profit on sales, what with costs and taxes increasing, will be an achievement that only efficient management can accomplish. A management cannot be efficient unless it keeps the operating costs under its thumbs all the time by means of a monthly profit and loss statement.

The suggestions contained herein are based upon the experiences of printers as we reviewed them during World War II. They should be of practical value to all printers in the hectic days to come.



Vital link

Juengst machine has step lighting across the aisle, over machine, and over inserting work in back

• HIGHLIGHTED at the Sixth Educational Graphic Arts Exposition were the tremendous advances made in printing production. The ten conventions which ran concurrently with the exposition repeated the theme that production, once measured in units per day, is now measured in thousands and millions of units per hour.

Man, however, is by and large the same fellow he was hundreds of years ago—two feet, two hands, two eyes. Modern printing machinery has made it possible for his one pair of hands to do the work of hundreds—but it has not been so successful at increasing the amount of work done by his eyes.

Good lighting is the vital link between the mechanical and human elements in the printing industry. Proper lighting is an important tool in today's plant, a valuable tool when used wisely—a factor that is expensive when neglected.

When considering illumination, we speak of the intensity of the light source itself in terms of candle-power. A curve showing the candle-power of a source of light in all directions is called a candlepower distribution curve. The illumination on any surface is measured in footcandles by an instrument called a light meter. Light received by the eye in seeing has been measured in footcandles by an instrument known as the visibility meter. One foot-

candle is the illumination at a point on a surface one foot distant from a light source of one candlepower, the surface being at right angles to the light rays. At a distance of two feet from a source of one candlepower the illumination is only one-quarter of a footcandle, as the illumination varies inversely as the square of the distance from the source of light.

The four fundamental factors of vision are: brightness, contrast, size, and time. In practice, their interdependence is basic and vision is impossible in the absence of any one of these fundamentals.

#### **Printer's Color Problems**

The Inland Press, Chicago, is not only an example of a plant with the latest equipment—including the first 76-inch Miehle rotary sheet-fed press in the city of Chicago—but also one of the best lighted plants. Printing and offset lithography are produced in a well-lighted environment. Occupying the basement, second, third, and sixth floors of a building ideally designed for printers, the illustrations accompanying this article picture some of the lighting arrangements of the plant.

But even under the best lighting conditions, the printer has his problems. In the pressroom, inspecting most process color proofs, he works with "red" ink which actually is magenta reflecting red and blue light with relatively little reflection of

green. Working with process proofs, he works with "blue" ink, too, which actually is cyan reflecting both blue and green and relatively little red. To help him, colored fluorescent lamps have been widely used for making color-separation negatives.

Add to the above the fact that many pressmen are color blind or bordering on it. Often the best pressman with the longest and most varied experience cannot be trusted on jobs which require uniform inking from start to finish-even in singlecolor (black) work. The pressman's evesight is often not as dependable as that of some fellow workers who rate below him in skill and speed in all other phases of presswork. This weakness is magnified on the night and lobster shifts. Poor eyesight, of course, is not peculiar to pressmenit can happen to any workman.

Uncorrected vision is always a hazard. Poor lighting is, in effect, an uncorrected visibility. Worrying through life with defective vision is particularly costly in the printing business. The visually handicapped worker is not only diminishing his own efficiency but also that of his employer and his fellow employees.

The Government Printing Office tested relighting a card-punch subsection of the Bureau of Internal Revenue in which eighty-six cardpunch machines were operated under old-fashioned lighting and a dim environment. Charles P. Tolman,

## between mechanical and human elements

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By George Eaton

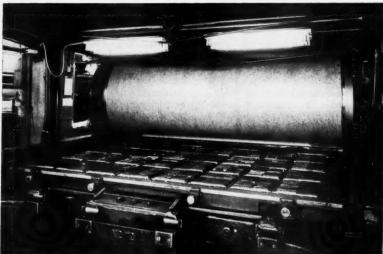
consulting engineer for National Society for the Prevention of Blindness, commented upon the result. "Even if we apply only the minimum gain in efficiency, 5.5 per cent of the annual payroll of the employees in the room (\$240,537.00), we find a saving annually of more than twice the \$6,500 cost for revamping the entire department to achieve improved illumination; in other words, 200 per cent profit on the invest-ment is made."

Most of us spend the majority of our daylight hours indoors, under

conditions which demand the use of artificial light nearly 100 per cent of the time. These are the hours when we do most of our creative work. This cannot be accomplished by the simple process of piling the floor knee-deep in footcandles.

Figure I is an illumination installation at the Beacon Journal Publishing Company. Footcandle and brightness measurements were ob-

Four 20-watt fluorescent tubes furnish adequate lighting for bed of this 74-inch Miehle press. All photographs were taken at the Inland Press and are by courtesy of the Hyre Electric Company





E. L. Harris offset press in Inland Press plant. Note lighting on ink and feeder; also note buss duct for tapping power in upper right corner

tained at the printing cylinders by using a light meter, compensated for fluorescent lighting, and recalibrated shortly before readings were taken. The footcandle readings were taken at the positions and heights as shown in the table with the light directly entering the cell. Brightness values are the result of an average of readings at varying distances from the surface considered with all light entering the cell being reflected from that surface.

Fixtures at the lower or press cylinder level were "angled" at 34 degrees toward the press, while other groups were mounted horizontally. The electrical energy to individual fixtures was supplied by circuits contained in dust-tight metallic raceways. Groups of approximately six fixtures were controlled from a lighting panelboard located at each end of the press room.

In the composing room of the same plant the lighting installation consisted of 230 fluorescent industrial type lighting fixtures, each with two 40-watt white lamps arranged in eight rows. The row spacing was 7 feet. The mounting height was 9 feet and the average maintained illumination was 60 foot candles.

After the installation, LeRoy Church, mechanical superintendent, commented, "There has been a definite increase in quality and quantity of work in the departments where new installations have been made.

"The installation enables correct color setting (uniformity of ink coverage), consequently a better looking paper, without smudge or other defects. Small type on the plates can easily be seen, affording quick 'chipouts' or corrections.

"Since the advertiser 'pays the freight' he likes a well printed paper. We have had no complaints from that score since the installations.

"Pressmen and printers experience less eye-strain, so consequently less body fatigue at the end of the working day.

"Much favorable comment is heard in the pressroom and composing room concerning the improved Good lighting helps to reduce fatigue and eyestrain. Seeing consumes energy on the part of the worker. The task of seeing under poor lighting conditions can have a considerable effect upon the nervous and muscular system.

Good lighting can help increase the utilization of floor space. A general lighting plan providing a satisfactory level of uniform illumination throughout a factory area permits machine arrangement for most efficient production.

Good lighting effects a more easily maintained cleanliness and neatness in the plant.

Good lighting helps to improve morale, decrease labor turnover, and insure better supervision of workers. A well lighted area helps to put the pressman in a happy frame of mind; and a happy worker is a better worker.

			Brightness Foot Lambert			
	Illumin Foot Ca Horizontal		Printing Cylinder Bare	Print. Cyl. With Paper		
First Level — Printing cylinders di- rectly under lighting fixtures						
48 inches above floor	57	12				
Ink Foundation 18" above floor	30	15				
Printing cylinder surface—						
midpoint	17	15	3	7		
Printing Cylinder 12" from end	22	24	3	7		
Walls to 9' above floor					8	
Walls 9' to 18' above floor					4	
Second Level—						
Compensation Rollers			No surface			
readings	25	20	Open space	9		
Third Level—						
Balloon Former—Midpoint	17	13	2	5		

FIGURE I

conditions. More light makes for more interest in the work."

Good lighting, therefore, is important to every printer. Better illumination means increased speed of vision. The eye, like a camera, needs a longer exposure for a good picture under low levels of illumination. Greater ease of seeing, especially among older employees, makes them more efficient.

Good lighting eliminates guesswork. Fewer mistakes are made with good lighting and when made are more readily detected. Experience has indicated that good lighting can lower the spoilage rate by 50 per cent—and increase quality.

Good lighting reduces accidents. Many of the accidents which cause an idle machine and consequent non-productive time are due to improper lighting. Proper quality and quantity of illumination aid in reducing accidents in the printing plant.

Minimum Operating Footcandles	
Measured on the Work	
Printing Industries:	
Type Foundries—	
Matrix Making, Dressing Type	A*
Font Assembly—Sorting	
Hand Casting	
Machine Casting	20
Printing Plants:	
Presses	C*
Imposing Stones	A*D*
Presses	C*
Proofreading	A*
Photography:	
Dry Plate and Film	2000
Wet Plate	3000
Printing on Metal	
Electrotyping:	
Molding, Finishing, Leveling Mo	olds.
Routing, Trimming	B*
Blocking, Tinning	
Electroplating, Washing, Backing	20
Photoengraving:	
Etching, Staging	20
Blocking	
Routing, Finishing, Proofing	
Tint Laying	
Receiving and Shipping	
*Lighting recommendation	na for

\*Lighting recommendations for the more difficult seeing tasks, as indicated by A, B, C, and D in the foregoing table, are as follows:

Group A: These seeing tasks involve (a) the discrimination of extremely fine detail under conditions of (b) extremely poor contrast, (c) for long periods of time. To meet these requirements, illumination levels above 100 footcandles are recommended for Group A.

To provide illumination of this order a combination of at least 20 footcandles of general lighting plus specialized supplementary lighting is necessary. The design and installation of the combination systems must not only provide a sufficient amount of light but also must provide the proper direction of light, diffusion, eye protection, and insofar as possible must eliminate direct and reflected glare as well as objectionable shadows.

Group B: This group of visual tasks involves (a) the discrimination of fine detail under conditions of (b) a fair degree of contrast (c) for long periods of time. Illumination levels from 50 to 100 footcandles are required.

#### Supplementary Lighting

To provide illumination of this order a combination of 10 to 20 footcandles of general lighting plus specialized supplementary lighting is necessary. The design and installation of combination systems must not only provide a sufficient amount of light but also must provide the proper direction of light diffusion, eye protection, and insofar as possible must eliminate direct and reflected glare as well as objectionable shadows.

Group C: The seeing tasks in this group involve (a) the discrimination of moderately fine detail under conditions of (b) better than average contrast (c) for intermittent periods of time.

The level of illumination required is of the order of 30 to 50 footcandles and in some instances it may be provided from a general lighting system. Oftentimes, however, it will be found more economical and yet equally satisfactory to provide from 10 to 20 footcandles from the general system and the remainder from specialized supplementary lighting. The design and installation of the combination systems must not only provide a sufficient amount of light but also must provide the proper direction of light, diffusion, eye protection, and insofar as possible must eliminate direct and reflected glare as well as objectionable shadows.

(Concluded on Page 84.)

# SELL a book by its cover?

You can SELL a book, catalog, or brochure easier with a cover that makes the publication look better and protects it against wear. Here is the case for use of cover papers

#### By Forrest Rundell

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• A RECENT advertisement for cover papers appearing in leading magazines runs something like this:

The buyer is speaking to an assistant. "What makes this new catalog put out by the XYZ Company look so much better than ours?" Assistant: "Well, they put a cover on their catalog."

Simple? Yes, but it sums up the whole reason for the use of cover papers. And, to a certain degree it covers their important characteristics. A cover is put on a catalog or brochure because it makes the publication look better and because it protects it against wear. This latter feature is especially important in the case of catalogs which are expected to last for a long time and must stand frequent handling.

But there are other uses, too, for cover stocks. Menus, for example. A four-page menu printed on cover stock carries the printing in a form which has endurance and necessary stiffness for easy handling. Colored cover stocks also make attractive self-mailers, with the fancy finishes and colors adding appeal.

Because of the great numbers of different uses for cover stocks they are made in greater variety of colors, finishes, and surfaces than any other type of advertising papers. These varieties start from the supers, which are made to protect magazines. From this beginning the papers work through the various grades to the heavyweight soilproofs which come in a large choice of colors and finishes.

To begin with, we have those supers which are largely used in the magazine field. These are sold to publishers in mill runs and instead of the ordinary cover weights are furnished in the book weights of 70-, 80-, and 90-pound. These are lighter than the ordinary cover weights but are made stronger than the ordinary text supers in order to stand the heavy handling.

Next in quality we find the ground-wood-content covers. Made of sulphite pulp with a generous mixture of groundwood they are relatively low in price. These come in a relatively small number-of colors rather lacking brilliance. They are generally used where price is a strong factor, in large edition printing.

Next we have the leatherettes. Made with a jute furnish, these are strong, and are rolled into a leather finish. Price is a factor here but the color is fairly good and the covers stand up well under heavy service. They are gradually being superseded by the sulphite covers, which have a better color.

Then, too, we have the coated covers in white and india. They have a coating similar to the number one and number two text weights of coating. Their weights ordinarily run 20 by 26-60, 80, and 100 pounds to 500 sheets, being about 6 points, 8 points, and 10 points respectively in thickness. Their coating matches that of equivalent text papers but they have the disadvantage of being difficult to fold without cracking on the backbone. As covers they are quite similar to the equivalent texts and make a fine unit for catalog or brochure work.

#### **Cover Stock Advantages**

An advantage of this grade of cover stock is that it varnishes or lacquers readily, forming brilliant effects. The smoothness of the coating makes it suitable for laminating and thus being soilproof, with very brilliant effect. Four-color process or other color effects are common with its use. Laminating is relatively expensive and the printer should always consult his finisher before he contracts to deliver a laminated job. Some printers who failed to get the advice of their laminators have run into strange surprises.

A common use for the coated covers has been in the field of low-priced reprints of novels. The twenty-five cent books printed on bulking antique texts usually have a brilliant cover as their only illustration. This

cover is almost always in color, often in four-color process. The attractive cover sells books where there would be little or no call for a book with a plain cover. Anyone who has seen the almost continuous stream of bystanders stop to look at racks of such books will realize the selling value of the covers.

Next we come to the most popular cover of all, the number one sulphite. The best grade of sulphite takes dyes with a clear brilliance and strength of the fibers makes for an enduring cover. One firm, well known for the quality of its sulphite products, recommends its covers for catalogs, booklets, posters, price lists, broadsides, folders, self-mailers, manuals, annual reports, programs, and other uses where colored paper of strength and stiffness would be appropriate.

This same mill recommends its covers for use because they provide:

A "flower garden" range of eleven color-fast hues plus a new and brilliant shade of white. These colors provide soft warm backgrounds of rich combinations of colored inks.

A choice of antique or ripple finishes which—in white and colors—are exceptionally "like sided" for work-and-turn printing.

Rugged durability to withstand long hard usage, toughness to emboss without breaking, pliability to score and fold neatly and repeatedly.

A resilient printing surface for letterpress or offset. The cover cuts makeready time; prints rapidly with less ink consumption, enhances the appearance of halftones, line cuts, solids, ornaments, and type.

All number one sulphite makers aim at papers which answer this description.

As to finish, almost all cover stocks are made in antique finish. Exceptions are particularly the smooth coateds. Other finishes are available, depending upon mill equipment. Ripple is available in most stocks as is an imitation leather finish. Brushmark, morocco, plate, new linen, cordovan, hand made, stucco, Biltmore, and coral are the names of some of the other surfaces. It must be added,

however, that the heavier embossing is not suitable for work and turn.

As far as colors are concerned, the printer has a choice of some fifteen or more in common use. White, india, sepia, tan, copper, two shades each of blue, green, gray; goldenrod, scarlet, and black. The colors represented by these names vary with the papermaker concerned, giving the printer an exceptional variety to choose from. Cover stock is the one grade of paper in which the appearance is the criterion of the quality wanted.

The usual weights are 20 by 26-50/500; 20 by 26—65/500; 20 by 26 -130/500. The latter is usually made by the mill pasting two sheets

of 65 pound together.

In addition some mills make a de luxe paper in matching text and cover weights. These come in 26 by 400-153/1000; 26 by 40-175/1000; and 26 by 40-306/1000. Colors are delicate pastel shades and the paper usually has a deckle on each 40 edge. Finishes are suede and hand made. The different weights afford opportunities for text and cover to be put together in fine advertising booklets.

#### **Cover Protection**

One paper, which its makers claim to be the oldest, most famous, and most complete of all cover lines in the world, offers a particularly large choice in colors and finishes. This cover differs from most others in that it has a 25 per cent rag content mixed with its sulphite furnish. This rag content, along with the fine grade of dyes used, makes a cover which is brilliant as well as strong. Weights available are 40-pound, 50pound, 65-pound, 80-pound, and double thick. Fourteen different colors are standard and each may be had in any one of nine finishes. In addition, on orders for some 800 pounds, the mill will paste together two sheets of different colors of 50-pound cover.

This mill carries this motto on its advertising. "If you want your catalog or booklet to be read from cover to cover-be sure that it has a cover."

The question of protecting a cover from soil has bothered printers from the earliest days. Probably the simplest method of protecting the surface is by using a coated cover and then varnishing the surface after printing. This makes the surface soilproof and has the advantage of bringing out the richness of the tones of the ink.

At the same time the process of varnishing has certain disadvantages. If the varnishing is done on the press the amount of varnish deposited on the paper will be too thin for bringing out the full value of the process. Spirit varnishing is better. Here the coating is heavy enough to bring out the full beauty of the process and substantial enough to give thorough protection to the paper. Spirit varnish is more expensive than press varnish.

One disadvantage found in varnish is the brownish color of the varnish itself. This makes little difference when the varnish is laid over colored ink. But over white paper the difference is very noticeable. On many surfaces the varnish practically disappears where it falls on the plain paper.

A better result can be obtained by the use of lacquer, because the coat-

INVISIBLE ERRORS

TYPOGRAPHY?

#### What are they?

Briefly, they are found in the spacing of words, lines, and letters; they are in the alignment of one letter with another, in the relation between the size of type, the measure to which it is set, and the size of paper on which it is printed; they are shown in the unhappy marriage between one type and another, in the wrong distribution of color, and in the wrong choice of paper. The only way to make sure that your work is without these "invisible" errors is to engage a press with a trained typographer on the staff and to insist that such a man superintends the production of all your printing jobs. Naturally it will cost you more to have your work done by such a printer, but the finished result will be well worth the cost. Another important point: Give the printer plenty of time. Avoid the "rush jobs" and last-minute changes. Where the craftsmen are harassed and urged to do the impossible you will never get work free from "invisible" errors.

Sound advice above is reprinted from our March 1950 issue, where it was incorrectly credited. It is taken from an article written by Vincent Steer, typographer of Orphington, Kent, England ing is transparent in itself and does not show a brownish tinge.

Still better, however, is lamination with cellulose acetate. In this process a thin film of acetate averaging about .88 thousandths of an inch thick (less than one thousandth) is deposited over the printed surface. Both the film and the processes of attaching it to the printed surface have been perfected to a point where there is no danger of its coming off the paper.

From time to time efforts have been made to manufacture a paper which would be coated with a soilproof surface before printing. But it is only recently that a paper which would retain the ink after printing has been developed. Now there is a paper on the market which has a plastic coating on one side and which can be printed with inks that dry by oxidation. This plastic coating takes a dye the same color as the coating under it. The combination makes for a very brilliant even set of colors, and an exceedingly bright white. The printed plastic with its ink is soilproof, an occasional wiping with a damp cloth sufficing to restore the brilliance of the surface.

#### Other Cover Stocks

A further advantage of this stock is found in the fact that it can be had in special colors on orders for making quantities. Another advantage lies in the fact that this stock is not only peel-proof but crackproof as well. If the back bone of the cover is scored with a light impression of a round-faced scoring rule it will not crack but will retain its smooth surface.

This cover prints 100- or 120-line screen halftones with careful makeready. It is a little tricky to handle but results are worth the trouble. Two finishes are furnished, one smooth and the other slightly rough and called terrapin. Both are supplied with white backs only.

One other cover is worth mentioning here. The cast-coated stocks are made in cover weights as well as in text weights. This cast-coating makes a brilliant white coating on the coated surface. The nature of the coating is such that it prints very well, both fine screen halftones and solids. It shows off high gloss inks to advantage.

This coating is not soilproof. It shows dirt very easily. The advantage lies in the ease of printing it, and the brilliance of the results. Many of this year's Christmas cards were printed on lighter weights of

cast-coated.

## **STANDARDS**

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### for Estimating Ink Coverage

A solid plate form is the only fixed element among many variables—and printing ink can be expensive!

### By Eugene St. John

• ESTIMATING the quantity of ink required is a problem of importance to printing salesmen, pressroom foremen, purchasing agents, and owners of printing plants because frequently the cost of ink is entirely overlooked or not enough is estimated for the job, causing a loss. On the other hand, no pressman or other estimator with his employer's interest in mind wants to order more ink than seems to be needed, especially when the ink happens to be one that does not improve with age. Nor does the inkmaker like to take back an over-order of such ink.

The basic printing element in calculating ink needed for coverage is the form and it is the only fixed element that enters into the calculation. Obviously a solid plate form is the most convenient standard for estimating ink coverage. Rubber forms, because of their resiliency, which helps coverage of the lower areas of the surface of a sheet of stock with less ink than a harder form, require less ink than forms of metal, plastics, and wood, especially on the rougher, unlevel stocks. The difference in ink supply needed by forms of the different materials is negligible.

As only a low percentage of jobs are entirely solid, it is necessary in non-solid plate forms and in mixed forms of plates and type to calculate what percentage of solid the form really is. Type matter is estimated roughly as 8 to 12 per cent solid and halftones between 50 and 60 per cent solid, according to their density. The variance in type density depends on whether the face is fine or bold, and solid or leaded. With this data and a rule, it is possible to calculate ap-

proximate number of square inches solid contained in the form.

There is variance in papers and inks and in the manner of application of ink to form and from form to paper or other stock, and these applications are subject to changes of atmospheric conditions. As previously stated, only the form is fixed. First, let's examine the characteristics of paper that affect coverage.

It is frequently stated that the most important of these paper characteristics are smoothness, absorbency, and receptivity. Experience shows that levelness should be substituted for smoothness because among papers of the same smoothness of surface, the level sheet requires less ink for coverage than the unlevel. This is true of both uncoated and coated papers, none of which, of course, are absolutely level.

#### **Checking the Characteristics**

The first place to examine a sheet for levelness is in the look-through when the sheet is held between the eyes and a good light. The sheet should show a uniform, well closed formation, not cloudy in spots and without thick and thin areas, opaque, translucent, and transparent, because these differences in appearance reveal nonuniformity in thickness of the sheet. The darker areas are groups of fibers not properly dispersed. Under the pressure of printing, which may amount to seventy pounds to the longitudinal inch around the cylinder, these groups of clustered fibers receive more squeeze than the thinner, lower spaces between them. Because of the consequent bear-off, the interstices between the fiber clusters will need more ink for coverage since these depressions must be filled. Streaks and pin holes, too, may often be seen in the look-through.

The calendering operation forces the fibers closer together and a wild formation requires a harder calendering to approximate levelness in the sheet. This results in a high polishing of the thicker spots of clustered fiber so that they become so hard as to lose much of their ink receptivity. The pressman may crowd on both impression and ink to get an even print but the pitfalls of offset and mottle will be present.

Cushion affects the compressibility of a sheet so that it may level off under the squeeze of impression and result in better contact between form and sheet than is obtained with a smoother, harder sheet.

Trouble-free printing depends to a great extent upon proper absorbency of ink by the sheet. As a general rule the softer papers are more absorbent than hard ones and while they do require comparatively more ink, softer papers need less makeready than the hard. Dry-back and chalking must be considered in dealing with softer papers, and crystallization with harder ones.

The receptivity of ink by paper is its ability to take the ink from the form or, in other words, to properly clean the plate at impression. A lack of receptivity, found in some hard, highly polished sheets can cause trouble. Approximate levelness and proper absorbency mean little if the sheet lacks receptivity. Viewed in this light, proper receptivity is most important.

If the copy had been printed on a sheet properly receptive of ink it is obvious that it is very difficult to match the copy with a nonreceptive paper unless the ink is changed. Naturally, inking must be stronger. If a thicker film of ink is attempted, the result is likely to end in offset, smearing, and delayed drying along with possible mottle and spotty impressions. If the body of the ink is changed as corrective, the print will be without the expected snap and gloss. The addition of toner to the ink will help but toner is more costly.

Tests have proved that coverage differences of from 25 to 50 per cent, and in some cases even more, were due to the difference in levelness, smoothness, absorbency, or receptivity of paper. One function of the inkmaker is to formulate a corrective. This can be done when the suitability of paper and ink for the job is pretested as is becoming the custom.

The qualities of inks which affect coverage are strength of color, specific weight, opacity, and consistency or body. The grinding and dispersion of pigment in ink, which is the most costly step in inkmaking, is of great importance, also certain pressroom factors.

Ordinarily, when practicable for the job, a transparent ink of less specific weight than an opaque one, will yield better coverage on uncolored paper. This is quite apparent in the ink coverage table accompanying this article.

One might expect black ink, because of its opacity and density, to have better coverage than any colored ink. That this is not true is proved by tinting test and by the fact that the best black inks (really blue-black) are deepened with purple toner.

Toners cost more than extended inks but are valuable in overcoming mottle and in matching copy on difficult paper. With toner added, less ink may be carried; too much ink is the commonest cause of mottle. Extenders are used not only to hold down the cost of an ink but also to control the color strength of some pigments as for example, monastral blue, ordinarily used to approximate the iron blues in hue which is very deep blue, almost blue-black in toner strength.

In the table of ink coverage, results to be expected from high grade inks on different papers are shown but these results are subject to variation because of certain pressroom factors. Best results are obtained with all rollers (including riders) and ink fountain agitators in use on runs requiring much ink.

The nature of the form and press, their condition, age of rollers and their setting, makeready, the atmospheric conditions, and quantity of ink carried may alter results for better or worse.

Supplementary to our table of ink coverage, it may be noted that poster grade of newsprint might be grouped with m. f. and dull coated papers in respect of ink coverage requirements. Some bonds fall in the same group while others require more ink but not as much as rough cover stock.

#### First Step in Estimating

The first step in estimating the amount of ink a job requires is to measure the units of the form with rule and calculate what per cent solid it is.

The coverage figures in the table represent *possible* coverage and they should not be used in calculation as the table is a composite one, averaged from tables put out by various inkmakers. Consult your inkmaker for figures from his tables regarding ink to be ordered. The coverage is for 100 per cent solid.

Now multiply the area of the printing surface of the form, say 10 by 15 inches which equals 150 square inches, by the number of copies to be printed, say 20,000. The result (3,000,000) is divided by 100,000 if cover black is to be used. The result is 30, the number of pounds of ink needed. Suppose the form is 12 per cent solid. Then 12 per cent of 30 or 3.6 pounds of ink would be needed for the job. Colored inks may be figured from the table in the same way.

Allowance should be made for the quantity of ink consumed in makeready and in washup(s), also ink left on press after the run.

When overprinting colors, consult your inkmaker on saving ink in the surprinted color(s) over that used in first-down color.

Some printers estimate the number of square inches in the form and give this and other necessary information to the inkmaker and let him estimate the amount of ink needed. Others turn the entire job of estimating over to the inkmaker. This works out all right if time is not pressing.

At times, estimating must be done in a hurry without help from others. Some printers, aware that ink is from 2 to 5 per cent of the cost of the average job, use that average as the amount of ink needed. If the job is in the average class, well and good, but what happens if it is one requiring an extraordinary quantity of ink, especially if one of the most expensive inks is required? Better do a little figuring first!

#### LETTERPRESS INK COVERAGE

Number of square inches (in thousands) per pound of ink, approximately.

Kind of Stock	Coated	S. &S. C.	M. F.	Dull-coated	Offset	Cover
Ink						
Black	250	225	160	160	150	100
Purple and violet	200	200	150	150	150	85
Purple, violet toner	260	260	200	200	200	100
Blue lake	200	200	150	150	150	100
Bronze blue	200	200	150	150	150	100
Peacock blue	200	200	150	150	150	100
Process blue	200	200	150	150	150	100
Green lake	200	200	150	150	150	100
Green toner	225	200	200	200	175	125
Chrome green	150	150	80	80	80	70
Cover red	175	150	150	150	80	80
Red lake	175	150	150	150	125	72
Red toner	225	200	200	200	175	75
Chrome orange	175	150	150	150	125	70
Persian orange	200	200	150	150	125	85
Orange toner	200	200	150	150	125	85
Chrome yellow	175	175	75	75	75	75
Yellow lake	200	175	150	150	150	100
Transparent tint base	275	250	175	175	175	100
Mixing white	125	100	90	90	90	80

Brown inks are principally composed of red or orange or both to which is added comparatively little black. Some browns are further modified with a little blue or green for a cold brown or with red for a warm brown. Opaque browns have the coverage of opaque yellow or orange or red; transparent browns, the coverage of transparent orange or red.

browns, the coverage of transparent orange or red.

There is considerable difference in metallic and two-tone inks put out by different inkmakers. Consult your supplier. On the average, about 5 per cent more than black is needed in aluminum, and 15 more in gold ink. From 10 to 15 per cent more two-tone ink than black is the average.

White paper is the basis of ink-coverage table. For colored papers consult your inkmaker.

# Specimen Review

SPECIMENS FOR CRITICISM MUST BE SENT FLAT, NOT ROLLED OR FOLDED. REPLIES CANNOT BE MADE BY MAIL. . By J.L. Frazier

RHODESIAN ANNUAL, of Bulawayo, Southern Rhodesia.—We thank you for the copy of your 1950 Christmas Annual, something we have enjoyed each year for a very long time. Typographically, this latest one is in our opinion the best yet. Four-color presswork on front cover illustration, a striking one, is not subject to the least adverse criticism as was last year's cover. Advertisements are "cleaner," meaning that the composition is in fewer-and we believe newer-types. There is, it seems, more order in arrangement of display and less crowding. We believe the Brush script used for headings of articles is an improvement over any type used in the past. Presswork is commendable.

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CLAUDE BRUNETTE, of Montreal, Canada.—In spite of the small size, business cards give an inventive artist-typographer like yourself a great opportunity.

Copy is brief as a rule, and its nature such that almost any break-up of elements is permissible. Added to that, use of ornament and other decorative features such as rule (especially if conventionalized and not definitely inappropriate) is not only permissible but may be even vital in achieving the attention everyone wants his card to get. In the cards you submit—all informal, as what has been said would seem to indicate-you make use of about every device to be depended on for distinction. Three rules in red extending in from the right side and a triangle ornament serving as a direction arrow, eyetrack, to your business dem-



A striking business card creation from Claude Brunette, of Montreal. Red is color on original

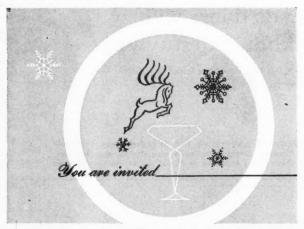
onstrate how these simplest of typographical utilities may serve as art.

EDWARD MORTIMER, Limited, of Halifax, Yorkshire.—Your 1951 calendar is excellent. Handling of days and dates is unconventional, names of days appearing in a column on the left followed by figures representing dates of Sundays, for instance, at the right

in the same line. The calendar leaves stitched to mount are much more attractive than such usually are, being printed in 36-point Bodoni. Instead of the conventional box for each date there are cut-off rules in red across between the lines, no vertical rules or lines whatever. We think, however, your name, address, et cetera, above calendar panels and below your truly effective monogram are too small in relation to the size of the calendar section. Both being larger would give your name due importance and balance in weight with the calendar leaves. Furthermore, spacing is too wide between words of these lines of your "card." Close word-spacing is preferable, in fact there should be only enough to set words definitely apart.

MILLER PRINTING MACHINERY COM-PANY, Pittsburgh.—Your 1951 greeting is pleasing in its dignified way. Feature,

> and it is a real feature these days when use is made of the device of blind-embossing, is the appearance of the name "Miller" within the oval outline just like your trade-mark. Where type or lettering is large, as in this case, blind-embossing is a change of pace which commands attention and interest, all the while reflecting a note which suggests a quality article to appeal to folks of refined taste. The quality, while essentially to be associated with dainty things and jewels, maybe, is certainly not inapppropriate on a piece such as this issued by the make of a printing press who in one sense rates it a jewel-of, say, precision,



Title and spread (below) of French-style folder by G. H. Petty, Indianapelis. On original the type is green, background gray having a faint pink hue







#### CHOICE OF EXPERIENCED TRAVELERS

A NORTHERN TRUST LETTER OF CREDIT

Travel is more enjoyable when funds are protected from loss or theft. A Northern Trust Letter of Credit keeps funds safe. It also will introduce you in leading banks in all accessible countries. Easy to use, Northern Trust's Letter of Credit is recommended for your vacuation or business trip to other countries.

FOR DOMESTIC TRAVEL

Buy Travelers' Checks Here—100% Safe—Convenient as Cashi

THE NORTHERN TRUST COMPANY

# We can do things with abcdefghijklmnopgrstuvwxyz

J. M. BUNDSCHO, INC., Advertising Typographers



Blotter at top is from leading Canadian printer who regularly features cartoon crane. Colors add appeal to blotter of Northern Trust Company, Chicago. Bundscho's copy slant is appealing, and, so far as we know, represents original use of the idea. Red is original second color on all three

et cetera. Anyhow, too little use has been made of embossing—blind or embossed over printing—in recent years. The same might be said of the vignette halftone which years ago, rather than now, was a device for imparting appearance of class to items of printing.

THE J. W. FORD COMPANY, of Cincinnati, Ohio .-- Your blotter-size booklet showing one-line specimens (in one size) of the types you have is excellent. We like the cover and title pages especially. Except for a section aslant near the bottom left to show paper, background of cover is pale green. A facsimile of your business card is printed in the open panel, making it seem that the card is coming onto the page from outside the panel running off the page on the right. The title "Ford Types" is set wholly in lower case, something for which we cannot seem to find any justification, especially in the case of the first, a proper noun, your name. Title page has considerable interest because of the color light green applied in the form of a solid panel bleeding off all sides but with a shaped open space to the outline of which the type conforms around the right side, type being printed in black. We note with interest that you have a fine array of the later display faces as well as essential text faces like Baskerville, Garamont, and other favorites. Seems to us your equipment, along with your ability, sets you up to handle the most exacting assignments.

PARADIS-VINCENT, LIMITED, of Montreal, Canada.—Design of your fiftieth anniversary brochure featuring equipment and personnel is very good, layout of type matter is excellent; but the effect of these features is at a handicap on some pages because of a couple of errors. While the effect of the cover is smashing and the design over-all original and excellent, the fact that the background (solid black all over the 9- by 12-inch page except for



OD rest you merry, gentlemen!
Let nothing you dismay.
Remember Christ our Saviour
Was born on Christmas Day
To save us all from Satanis power
When we were gone astruy.
Quidings of comfort and joy!

From God our Heavenly Father;
A blessed angel came,
And unto certain sheptered
Brought tidings of the same;
How that in Bethlehmun was born
The Son of God by Name.
Quidings of comfort and joy!

Now to the Lord sing praises.
All you within this place,
And with true love and brotherhood
Each other now embrace.
This holy tide of Christmas
All other door leftere.
Quidings of comfort and joy.

In the larger size of the original—printed on fine plate-finished paper with deckled side edge—this folder by Vaughn Millbourn is mighty sweet

one odd-shaped cutout section where white paper appears) so dominates the type and illustration in red and gold-mostly gold-the page must be scored down measurably. The second error concerns the halftones which are shallow-etched. We realize nothing much more could have been done with the old and probably faded ones of fifty years ago when the business began but the manifestly late pictures must have been good enough to provide for better halftones than those used. Furthermore, the legends under some of the plates as printed in pale blue ink are difficult to read. We've an idea. If all the halftones were printed in brown-somewhat deeper than that used-all type matter in black, we feel improvement would be great.

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CASPAR MITCHELL, of London, England.—We are happy to receive the copy of the brochure heralding the coming of age (1928-1948) of the British Typographers Guild. The general treatment is in keeping with the fine traditions of the typographer of books, which means it is conservative and readable, gray in tone rather than bold and black in any sense. Contained are several

CLAUDE BRUNETTE

In his card Mr. Brunette displays a knack for combining unconventional arrangement and common decorative devices with telling effect

interesting and sound articles on the practice of typography done by members like Vincent Steer, George W. Hines, R. M. Baddeley, and others including your own good self. With all the other best practices of typography the book exemplified, we regret to state that to our way of thinking lines of some pages appear too closely spaced. Here, the addition of even so little as onepoint leads would make a world of difference. Your commentator was dubbed "One-Point Frazier" in one of the plants where this magazine has been printed, as if a singlepoint of difference was of any consequence. We insist it is, may be of great consequence. As a matter of fact the addition of a single point of space between line set in eightor ten-point type is quite a lot relatively, percentage-wise. Really, though, we probably shouldn't drag in this sour note, with the selection of type, handling, and all else, in fact, so commendably handled.

THE A. B. HIRSCHFELD PRESS, of Denver, Colorado.—Blotters which you submit are all outstanding, some wonderfully fine. Appearance-

wise we consider those headed "Have Faith in Humanity" and "Hirschfeld Brought Good Typography to Chicago" are in our humble judgment veritable gems. They command attention and interest by sheer beauty and yet some unable to do such work have been known to depreciate beautiful design and typography as represented by the second blotter named. The first one mentioned is as modern-sensibly modern rather than bizarre—as typography and design with it can possibly be. For those having a yen for more splash-we'll not say bang-we recommend the

The Art
Directors Club
of Detroit

invites you to attend the next meeting at the Scarab Club, 217 Farnsworth Ave., Tuesday, February 21 at 8:00 P. M. Our speaker will be Burton Cherry, Director of Design and Typography at The Cuneo Press, Inc., Chicago, who will tell us about some problems which were successfully solved typographically. His talk will be illustrated with before and after slides in color.

The Cuneo Press, Inc.

Cermak Road, Canal and Grove Streets Chicago 16, Illinois why worry About Your

Annual

Report!

Our Staff of Experts Will Assure You:

Better Typography

Better Illustration

Better Format Better Expression

h will pay you to put The Cuneo Press, Inc. in

Your Annual Report picture

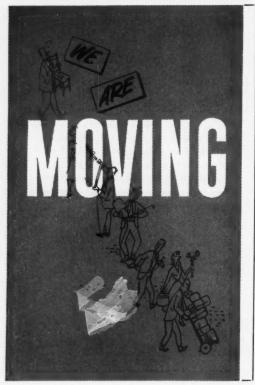
Nice work from Burton R. Cherry, typographic director of Cuneo Press, who indicates liking for items that are square or nearly so. The illustrations are in green-tinted gray on the original of leaflet in lower corner of this group

blotters "Pagoda Bold," introducing the face to Denver advertisers, and "Different." Both are equally fine—in their way. The latter has added value for the suggestions offered buyers of typography and printing. The word "different" is shown in nine different types in reverse color (purple) in a panel which bleeds off top and sides and takes up nearly two-thirds of the vertical

This is to Certify that

Is actively supporting the high aims of
The Clearing Foundation in perpetuating the great
work of Jans Jensen. The Clearing provides
the facilities and stimulating environment where
creative men and women can further their work and
study in the arts - politing, southers, design,
weaving, landscape architecture, music,
drama, dancing and literature.

\*\*Mandow, The Clearing Compile
Ethne Nay, Wilmania



Original of this folder is beyond range of our reproduction potential and readers must visualize much. Knebels Press, Wilmington, Delaware, both doer and mover, used an attractive yellow cover stock, printed reverse plate in medium gray, and illustration in deep red. Short front leaf is deckled along the side

The Nontreal

Chastsman

DECEMBER 1949

SHARE YOUR KNOWLEDGE

Plates above were made with idea of printing type in red as on original and trees, screened to delicate tone, in our black to represent green of original, but make-up problem didn't permit

space, printed the narrow way of the piece. We regret space doesn't permit a detailed description of all so others among our readers could step out and do likewise (maybe) for themselves, but we must mention the blotter die-cut around the top to simulate a target with an arrow with string end die-cut outside the circle, said arrow striking dead center of bull's-eye where outlined halftone of your plant is located.

C. RAYMOND BERAN, of San Francisco.-Like all you do, the booklet, "What is a Friend?" reflects the finest of typographical craftsmanship and exquisite taste in the selection of paper. Each of the three leaves ahead of center is folded shorter than the one which follows. Near top and right-hand edge of the first one the word "What" is printed in dark gray ink except for the "W," a Lombardic initial which is in red, the other letters as well as those of the other words being in large size Goudytext. On the extension of the second leaf "is" appears, "a" is at the edge of the third leaf while a question mark shows from the edge of the fourth leaf which like those following is full-page width, all the

words being in line as accurately as if printed on a single leaf at one impression. Preceding the interrogation point on the fourth leaf but unseen until the third leaf is raised there's the word "Friend." Interest is aroused not only by the general effect of novelty but by the curiosity aroused through what is first seen, namely "What is a ?" The stock of text pages is cream-toned eggshell with the front of each of the four leaves deckled. Cover of deep blue-green, also with righthand edge deckled, is folded short of the first leaf. To keep the short words of each leaf from seeming to be lost on the page there is preceding each a swirl in red which of course, saves the situation because without these the effect of each leaf separately would not be pleasing with just the one word showing. Text pages following, the poem of the title is set in 36-point Goudytext printed, as is the title, in deep gray. A lesser master would have printed the type in black and that would be a pity. The gray instead of black tends to soften the entire effect, makes it appeal to the esthetic taste of everyone. Finally, mention must



We admire this cover very much; it has power, and is highly appropriate. On the 9- by 12-inch original, background is deep green-olive and panel printed light gray

be made of the cord bow-tied at the fold outside. This, a lighter version of the cover stock, adds beauty and an effect of quality.

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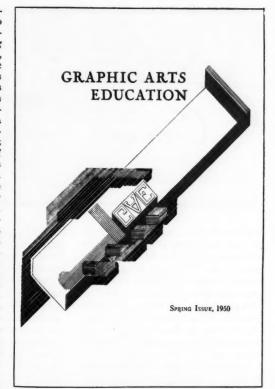
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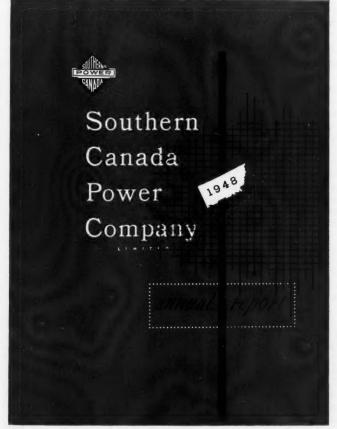
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JOHN L. DE BRUEYS, Houston, Texas.—We are not surprised to learn, as we examine the brochure you created and engineered to attract conventions to Plaza Hotel, of San Antonio, that "the first two conventions obtained through its instrumentality paid for its entire cost which exceeded two dollars a copy." Of twenty 9- by 12-inch pages and cover, the cost may startle some readers-perhaps startle most buyers of printers even morebut what better proof of value is there than such a record of dividends? The brochure is most appealing, starting with the black front cover made by printing an over-all and bleeding reverse plate, giving the impression of its being printed in red, gold, and white (this paper, of course) on black stock, all given a coating of high gloss, we believe, through laminating acetate sheeting on the front and back of the cover. The finest of everything, including copy, is evident except in one instance. The typography hasn't the class to match other features. Leading fault is use of too many

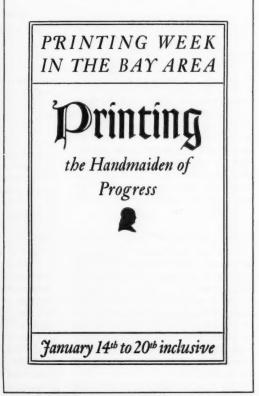
varied styles of type in the display, especially since some are so lacking in the design characteristics that make types get along well together. On the front cover, for example, we find true gothic (better known to most readers as Old English), a couple of lines of cursive lettering, a couple in the extra condensed type having Bodoni characteristics (extra condensed Bodoni would be a better name than those of different type makers supplying type of the kind and with extra bold sans serif used for several lines). Except for the fine effect of the glossy black over-all, the cover would be considered ordinary. A fundamental of typographical design is violated in the fact that the design as an entity is widest at the bottom. In design the inverted pyramid is a fine form but when the shaping conforms with the real pyramid the effect is invariably unbalanced. Presswork, both of one-color halftones in brown and the four-color process illustrations, is exceptionally fine: all halftones are printed clean and sharp. Credit for this belongs to the Gulf Publishing Company but the Art Engraving Company made the fine work by Gulf possible.



Impressive cover by students of Rochester Institute of Technology. On the 6- by 9-inch original of yellow stock the type was printed in black, hand in green, and composing stick in green



Cover of another fine annual report from Gazette Printing Company, Montreal. On the  $8\,1\!\!/_2$  - by 11-inch original the second color is soft blue of medium tone value



Title of folder listing the events of Printing Week in San Francisco Bay Area reflects style of Franklin's day. Red was the color used



● ONE OF THE standard titles we see in the bookstores these days runs something like this: "The Care and feeding of——." The particular item varies. It may be gold fish. It may be stenographers. It may be some furbearing animal. But the attractive feature of these books is that they offer advice in the cultivation and preservation of a person or thing in which we are interested.

So, says Professor Thomas Blaine Stanley, professor emeritus of marketing at New York University, why wouldn't it be a practical thing for us to study "The Care and Feeding of Clients," particularly at a time when there is so much turmoil due to re-armament. So, let's go.

Taking care of clients is probably the most difficult part of selling. If you don't believe it, ask an account executive in an advertising agency, where the average client stays with an agency for a usual period of two and a half years. Breaking into an account may seem at the time to be the most difficult feat. But holding on to a customer and nourishing his business to a point where he becomes an account is a much more difficult feat. Printers may be able to extend the life of an account past the time that their advertising agency brethren find practical, but the process is a difficult one.

#### The First Step

Let's see what some of the difficulties are. Say you have been calling on a prospect for some time. Finally you get a chance to bid on a job. It is likely to be a small one unless you have sold the customer on the idea that you can only serve him to advantage on a large printing. Just what steps are you going to use to take care of this order as it should be handled?

You have probably cut your price to the bone in order to get this first order. And you may run into paper difficulty right at the start. Spot paper is something of a proposition. Having slashed your price to the minimum you may find a bit of difficulty in furnishing exactly what you agreed to supply. With your profits pinched down to the vanishing point, what will you do to give your customer exactly what he expects?

If he is as human as most purchasing agents he will be suspicious of a new supplier. Anything you bring around as a substitute for the paper on which you made your successful bid will be scrutinized with the greatest of care. And he may not agree with your judgment as to what constitutes an equivalent.

#### How to Protect Yourself

From here on, in dealing with customers you do not know too well, it will be wise to protect yourself in your written specifications. Unless you are absolutely sure that you can match the specifications it will be well to allow yourself a choice when you submit your price.

But if the paper situation gives you a headache it also offers you a choice opportunity to break into a new account, Not every printer will be as conscientious as you. And if your competitor takes this particular time to substitute his own judgment for that of his customer, you may find that the customer will take this opportunity to give you a trial and see what you will do.

This is advice that extends to all sources of materials which are or may be in short supply during this chaotic period. Let your customer tell you what changes he will accept and you will stay out of trouble. Furthermore, this situation gives you an opportunity to talk over conditions with the customer and suggest ideas that may not have occurred to him. You may also take the occasion to ask your customer's advice as to methods of handling his problems.

There are few buyers who are unwilling to chat on the subject of improving their printing. You may find an entree through the exchange of ideas.

Funny how many new ideas will occur to you when you have the opportunity to have a real heart-to-heart talk with a customer over his problems. Many forms used by buyers are like Topsy—they just "growed." They may have evolved because someone who belonged to the organization thought they were a good idea at the time. This person may have left the organization long, long ago but his brain child has lingered on. And there is no guarantee that it was a particularly good idea even at the time it was initiated.

#### Offer Something New

Why not take the bull by the horns and offer the buyer something new? Don't accept his old solution of the problem. Make a fresh start from the proposition of studying his need first. Then work out something to meet that need.

Here is an example. Some years ago one of the New York banks decided to try out a new form of checking account which it called Check-O-Matic. The bank felt it could save money by printing its checks on lightweight bristol and save money by handling these checks through bookkeeping machines. This method would allow the banks to handle the accounts for ten cents per check without maintaining a balance.

Trial of this method brought out the following objections: The cards were clumsy, they were outsize, and subject to damage from folding. They didn't look like the normal checks. So the bank had to do something about it. It restricted the book-keeping machine cards to monthly balance statements and went back to a check of standard size and stock. This was accepted by its customers and business in that department increased.

But the bank was still looking for means to build up the business of that department. The discovery was made that many of its accounts would be better served if facilities were offered for making deposits by mail.

This took a bit of doing but an envelop was finally evolved that combined a deposit slip, a return address, and a receipt for the total deposit. These envelopes were displayed in a conspicuous place in the bank until the customers had a chance to get acquainted with them. Using them was easy. The customer took home

a supply. Then when he was ready to make a deposit he filled out the deposit slip, and the return address, and mailed the envelope to the bank with the checks. The bank processed the deposit slip in the usual way, filled out the receipt form, and mailed it back to the customer with a fresh envelope. This process was inexpensive; the cost was only that of a blank envelope plus a three-cent stamp. Most of the routine was handled by the customer.

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This whole development reminds the writer of a session he had working out a mailing piece for the YMCA. It was just before World War II. The YMCA was trying out the proposition that it could sell the services of the gymnasiums if it stressed the value of building up a physique that would carry its owner through any storm or stress.

The publicity director wanted help. He handed the writer a 17 by 22 sheet of wrapping paper folded to 51/2 by 81/2. Said he: "I want a two-color broadside like this. Want to work on it?" We did. We engaged the services of a young artist. He in turn hired a model who rather fancied his prowess as a wrestler. During a series of sessions in which the wrestler found that posing for YMCA was more of an assignment than he bargained for, a series of sketches was evolved which showed what the YMCA gyms were offering. The completed broadside eventually passed the inspection of the local bigwigs.

And—surprise! The broadside not only brought in additional gymnasium members, it also attracted the attention of YMCA branches all over the country. Before we were finished, the original order for 10,000 had been multiplied by ten and the complete order called for 100,000 broadsides. Just another case of sitting down with the boss and working on an idea until it jelled.

#### The Feeding Problem

But when we started we promised to discuss "The Care and Feeding of Clients." And the feeding part is one of the most delicate operations in the category. The principle, of course, is that the salesman wants to get the buyer off by himself. But unless he works it carefully, his customer will feel that all the salesman wants to do is to buy some business with a lunch.

Of course the salesman who is inviting a customer out wants to get him down to the plant where he can see the equipment and meet the executives. And because it is rather

obvious that this is just what the salesman wants he sometimes finds the buyer to be a little gun-shy.

A better idea for a first luncheon date is to select a meeting where



Answers to these questions have appeared in THE INLAND PRINTER and other sources of information at various times. How retentive is your memory? How many can you answer without consulting the answers on page 73?

The following printing terms have more or less been lost to the craft in the past eighty - odd years. Can you match the definition with the correct "lost" word?

- 1. Botch
- 2. Bottle arsed
- B. Half press
- 4. Mackle
- 5. Peel
- 6. Shooting stick
  - a. Incompetent workman.b. When but one person
  - works at the press.
  - Broad, thin board with a long handle.
  - d. Wedge-shaped instrument for locking up a form.
    e. When part of an impres-
  - sion appears double.

    f. Type wider at the bottom
- than at top.
  7. What is the best class of
- work for multiple shifts long or short press runs?
- Bon'l papers are made exclusively on Fourdrinier papermaking machines. True or false?
- 9. "Analine printing" is now more of a method than a process using analine dyes. True or false?
- 10. There is no apparent advantage in using dry offset over regular offset in color printing. True or false?
- 11. Our printing accident rate is getting worse. True or false?
- 12. The point system in composition is, of course, our "picas and points" of measurement—but what is the point system in presswork?

there will be an interesting speaker, preferably with a neutral subject. As an example we might cite the case of an American Legion Post where the standard of speakers has been very high. Here the chairman of the membership committee has compiled an enviable record in bringing in new members. He has never offered to pay for his prospect's lunch. He simply found some buyer with whom he wished to become better acquainted, told him what the attraction was and how much it would cost, then invited him to the meeting. If the prospect liked the meeting, our friend offered to sponsor his membership. And, believe it or not, he brought in a total of more than 400 members in the course of about three years. Naturally he got better acquainted with these men.

We have told this story at some length because it seems to us to contain the germ of the successful idea in getting customers interested through feeding them. Our friend did not put his guests under financial obligation. He offered them an attractive meeting to attend. And, if they liked the crowd, he helped them become members. Then, and not until then, did he cultivate their acquaintance in a business way.

#### **Biggest British Job**

● A SUPPLEMENTARY printing of the Encyclopaedia Britannica is now nearing completion in England. It is believed to be Great Britain's biggest offset book printing job.

The English reprint is being undertaken by Encyclopaedia Britannica, Limited, wholly owned British affiliate of the American publishing company whose world headquarters are in Chicago.

Increasing difficulties to supply the British and European markets from binderies in the United States, plus currency and import restrictions contributed to the move.

R. R. Donnelley and Sons Company of Chicago, American printer of the Britannica, produced careful proofs of each of the 25,000 plates in the Encyclopaedia Britannica, to be forwarded to Britain to form the "camera copy" for the new printing.

Halftone and color insets in the set, of which there are 1,623 pages, are still printed in the United States and tipped into the British printing.

The complete set of the Encyclopaedia Britannica consists of 27,236 pages containing 38,000,000 words and requiring the services of six printing firms, three platemaking firms, and four English binderies.



#### CALLAHAN PRINTING COMPANY NOT INCORPORATED

2345 N. MAIN STREET . PHONE BUTLER 3-4498 . ANYTOWN, U.S.A. SPECIALIZING IN COMMERCIAL STATIONERY

First prize winner is in yellow and pale green on white. Yellow background to the initials catches the eye in this outstanding letterhead by Max McGee



### Callahan Printing Company, Not Incorporated

· Specializing in Commercial Stationery ·

2345 NORTH MAIN STREET . TELEPHONE BUTLER 3-4498 Anytown, U.S.A.

Second price is awarded O. E. Booth for above letterhead. White initial is in orange ornament and orange line separates company name from address





SPECIALIZING IN COMMERCIAL STATIONERY 2345 North Main St. ANYTOWN, U. S. A.

I. F. Tucker's green and black letterhead on white tied for third prize. The ornament is pale green and also the dots on either side of the address

printing company NOT INCORPORATED

BUTLER 3-4498 · 2345 NORTH MAIN STREET · ANYTOWN, U.S.A.

specializing in COMMERCIAL STATIONERY

# WINNERS

# of The Inland Printer Letterhead Contest

• THE INLAND PRINTER Letterhead Contest, which closed on September 11, 1950, drew 200 entries from three continents. A selection displayed at the Sixth Educational Graphic Arts Exposition was viewed by a continuous line of appreciative visitors. No less than forty-six entries received one or more votes from the ten widely known typographers who were chosen to judge the contest: Burton Cherry, director of design and typography at the Cuneo Press; Howard N. King, vice-president of the Maple Press and noted typographic consultant and lecturer; John M. Lamoureux, Warwick Typographers, Incorporated; Igor de Lissovoy, R. R. Donnelley and Sons Company designer; Richard N. Mc-Arthur, noted authority on type lore; B. W. Radcliffe, of Intertype Company; Michael R. Stevens, general manager of John E. Weiss and Son, Incorporated; Frank Kofron, Minneapolis typographer; and Paul A. Bennett, director of typographic layout at Mergenthaler Linotype Company.

The forty-six point-winning entries alone illustrate international coverage of the contest. Eleven of the United States are represented and there are contestants from Australia, Sweden, Canada, England.

#### Here Are the Winners

Max McGee, of Springfield, Illinois, won the first prize. Mr. McGee won second prize in The Inland Printer Business Card Contest of 1950. He added to his laurels by having nine entries awarded points to the total of 143! O. E. Booth, of Des Moines, Iowa, won second prize.

J. F. Tucker, of New Philadelphia, Ohio, and G. H. Petty, of Indianapolis, Indiana, tied for third prize.

Bo Berdal, of Solna, Sweden, and Mr. Tucker tied for fourth prize; and Ernest A. Scammell, of Melbourne, Australia, saw to it that fifth prize will have a long trip. Burton Cherry, director of design and typography at The Cuneo Press, Incorporated, writes, "One of the most difficult problems of design is that of the letterhead. A letterhead's basic function is that of clearly stating the name and address of the sender. Because companies are organizations of people, the designer tries to give the letterhead a personality which will represent these people and a character which will indicate the kind of work they do.

#### **Judges Rate Entries**

"My first choice came closest to meeting all of the requirements I place on a letterhead. Many of the designs contained a good selection of type, well arranged and spaced. Good craftsmanship was to be found in most of the designs submitted.

"A good letterhead needs a device which will be quickly identified with the company that sends the letter. Trademarks, drawings, and design elements serve this purpose."

Michael R. Stevens, general manager of John E. Weiss and Son, Incorporated, says, "In judging any letterhead the following things must be considered in order of importance: 1. Effectiveness as a letterhead; 2. Suitability for the business it represents; 3. Legibility and balance; 4. Typographic design; 5. The color combinations and the choice of color; and 6. Presswork. It was on this basis that I made my selection."

Igor de Lissovoy, typographic designer at R. R. Donnelley and Sons Company, states, "Here are some of the reasons why I like my first choice of the letterheads:

"The letterhead has plenty of grace. It has loose feeling along with good balance. I like the treatment of traditional type in a modern way. It also seems to have constant movement and italic type makes it even more so."

Richard N. McArthur, president of Higgins-McArthur Company and noted typographer, had this to say about his first choice of the entries:

"Intelligently designed, and perfect taste in the selection of type faces. Bank Serif and Bodoni Book contrast harmoniously, blend beautifully. Shapely form and perfect order. Arranged, punctuated, wordspaced by a real typographer."

Mr. McArthur commented on the entire collection of letterheads submitted to the judges. "On the whole," he notes, "the specimens are lively and show that the contestants are free thinkers—not copycats of any category. I'd say to them: keep on trying, study the work of the great typographers, learn design, principles, and color. Don't make tricky arrangements; simplicity is the best rule; line makes design. There's much room at the top, and rewards for those who keep on 'til they come out ahead of the heap."

John Lamoureux, vice-president of the Warwick Typographers Incorporated and skilled typographer, found entries of a high excellence. "The calibre of material suggests to me," he writes to IP, "that the boys in the trade are just about as good as they ever were.

#### Simplicity Held Interest

Mr. Lamoureux commented on his first selection, "The studied simplicity of the letterhead of my choice is what attracted and held my interest.

"I liked the way the complete name of the company was treated as a unit rather than putting undue emphasis on the name Callahan or the initial 'C' or what have you. It seems to me that the full name of a company should be presented in a letterhead in a manner that is sincere and not too undignified.

"The use of a layout that captures the spirit of the letter, plus good spacing, completes the picture. The colors could probably be improved."

Howard N. King, vice-president of The Maple Press Company as well as outstanding typographer and International Craftsmen official, gives the following list of reasons for his first choice of letterhead:

"1. It was neat. 2. Well printed in appropriate color for the paper. 3. The design was good. 4. The type is one of my favorites, Bulmer; and finally, Number 5, the lines show care in spacing and that is just as important as anything else."

R. Hunter Middleton, director of type design at Ludlow Typograph Company, stated the following reasons for his selection of the best letterhead: "In judging any classification of printing, the first step is to leaf through the entries and set aside every item which has eye-stopping appeal.

"The second step is to analyze the reason for this appeal—also to decide whether the letterhead, in this instance, has additional merit to support its initial selection.

"In my first selection the eyestopping appeal is due to the effectiveness of the illustration and an up-to-date typographic effect. While the typography of the letterhead is not overly forceful, it is nicely organized and will not dominate the typewritten letter. The position of the letterhead typography is better understood when we imagine the typewritten letter on the page. Because of the open space at the left of the letterhead the reader has an excellent opportunity to get into the letter itself without interference.

"In other words, this letterhead has eye-stopping appeal, the illustration is symbolic of the printing industry, and the necessary information is clearly stated and sympathetic in display relation with the typewritten letter, which when centered on the page results in an attractive letter instead of just a striking letterhead."

#### Visualize Finished Letter

B. W. Radcliffe, director of typography at the Intertype Corporation, says, "After considering the usual combination of type, ink, and paper on a letterhead, I try to visualize its appearance after the job has been completed by the letter.

"In this respect No. ..... is perfect. By aligning the date line with the right-hand group the message, if properly typed, becomes an integral part of the design."

Frank Kofron, Minneapolis typographer and consultant, states: "My first choice indicates consideration for good letterspacing of capitals and the suggestion that it conveys that here is a printer who will give careful study to a job and also try to make it a bit different.

"I feel that out of the lot of letterheads submitted it shows an understanding of better typography. Care has been given to letterspacing and a pleasant effect has resulted from use of only one type style. The arrangement is pleasing from a design standpoint—is not static—and suggests that commercial printing or any other kind would be intelligently handled."

Paul A. Bennett, director of typographic layout at the Mergenthaler Linotype Company, says: "Best obviously means different things to different people. And since I selected what I considered best, I suppose it's in order to indicate why I liked the ten I did. Here's my completely frank reaction:

"My first choice seems to me to be fresh, original, and arresting, and yet handled with typographic intelligence in every detail. I do not mind the mixture of lowercase Garamond italic and small caps, and I do salute the typographer for his original and unconventional arrangement."

#### HOW JUDGES SCORED LEADING ENTRIES

		JUDGES												
No.	A	В	C	D	E	F	G	H	I	J	Total		Contestant	
54	3	5			10	1		7	10		36	Max McGee		
142			10		9	10					29	O. E. Booth		
113			9					4	9	4	26	J. F. Tucker		
14	10					6				10	26	G. H. Petty		
110				8	8	9					25	J. F. Tucker		
168	9	1		7					8		25	Bo Berndal		
11		7	+4.			8	6		3		24	Ernest A. Scammell		
105		2		4	4				6	7	23	Emil Georg Sahlin		
81		9	3					5		2	19	Max McGee		
52							4	8	4	3	19	Max McGee		
50	5			6		7					18	Max McGee		
80	1				7				2	8	18	George Martin		
34	8				6			3			17	Sol Malkoff		
13	7							10		1	17	G. H. Petty		
179	6			9						1	15	Elmer Axelson		
53				10	5						15	Max McGee		
82		10	1			3					14	George Martin		
55						5		9			14	Max McGee		
192		1			1		9	2			11	John F. Bethune		
180		1		5						6	11	Max McGee		
144			-				2			9	11	O. E. Booth		
114		4		1			5				10	J. F. Tucker		
49	Ī		I	1	İ	Ī	10		I	. 1	10	Hjalmar Erickson		
101		8	İ	1	1	İ			i	İ	9	Emil Georg Sahlin		
57	Ī	1	2	Ī	1	Ī			7	1	9	Emmitt Johnson		
36	2	1	1	2	i	İ		Ì	i	5	9	Sol Malkoff		
79	1	1	8	i	i	i		i	İ	-	8	George Martin		
138	İ	İ	i	i	Ì	Ì	8	i	i	i	8	George B. Price		
56	Ì	6	İ	İ	i	1	1	i	i	i	7	Max McGee		
37	i	1	7	i	1	i	1	i	i	İ	7	Sol Malkoff		
112	T	i	i	i	T	i	7	i	i	1	7 1	J. F. Tucker		
164	i	T	6	i	i	i	1	1	1		6	Ernest A. Scammell		
65	1	1	1	1	i	1	1	6	1	1	6	Walter D. Dickson		
27	1	1	5	1	1	1			1	1	5	J. H. Loates		
83	1	1	1	1	1	1		1	5	1	5	George Martin		
10	1	1	1	3	2	1	1	1			5	Robert U. Smith, Jr.		
51	4	1	-	1	1	-		-	1	1	4	Max McGee		
90	-1	1	4	1	1	+	1	-	1	1	4	Edgar A. Peterson		
09	-	1	-	1		4	1		1	1	4	O. E. Booth		
93	1	3	1	1	1	-	1	1	1	-	3	John F. Bethune		
69	1	1	1	1	3	1	1	1	1	-	3	Algot Ringstrom		
95	1	1	-	1	1	1	3	-	1	-	3	Edgar A. Peterson		
16	-	1	1	-	-	2	0	-	-	-	2	Rune Lilja		
75	-	-	-	1	1	2	1	1	-	-	1	John F. Bethune		
86	-	-	-	-	+	-	1	1	1	1	1	Edgar A. Peterson		
57	-			-		-	-	-	1	1	1	Harold Tierney		



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Above, left: John A. Stout, new to firm of Samuel C. Stout Company; right: Ralph J. Walte, retired after forty-year service with Michle



Judges in Hamilton contest for fine printed pieces, seated men are C. William Schneidereith, Raymond Blattenberger, Abraham Colish. Standing, Hamilton men: Lane Taylor, Hugo Hanson, Joseph Dunton



J. Edgar Lee, Challenge Machinery Company president, receives gold watch from E. Paul Babcock assistant sales manager, at Mr. Lee's 85th birthday celebration. He has been with firm 69 year:

# PEOPLE IN THE NEWS







Above (left): George J. Parker, ATF vice-president; Charles E. Love, vice-president at Commercial Controls Corporation; and John T. Hargrave, an Interchemical Corporation printing ink branch sales manager Will





Above, left to right: Richard G. Thelen, leader of Albany Craftsmen; William G. Dudley, sales manager of John Maher Printing Company

Below: Group at Cheese Party held in the Advertising and Sales Executives Club, Kansas City, Missouri. Lee Augustine, Printing Machinery Company, was one of the jolly hosts



# PROOFROOM PROBLEMS AND METHODS The Proofroom

ARE THE CONCERN OF THIS DEPARTMENT. QUERIES AND COMMENT WELCOME



#### TOO MANY MONUMENTS

Once before you helped me with a bothersome proofreading problem; so again I appeal to you for advice.

How would you punctuate the following sentence: "Washington D.C.'s many monuments enhance its formal beauty."

Should D.C. be set off by commas?
"Washington, D.C.'s, many monuments
..." Should the commas be dropped?
"Washington D.C.'s many monuments
..." Or should we keep one comma?
"Washington, D.C.'s many monuments

Although a rewrite, such as "The many monuments of Washington, D.C., enhance its formal beauty," would solve the problem, that is the easy way, and far be it from any of us to be content with such a simple solution.

With the world in the state it is in, with five more payments due before the TV set is ours, we should worry about a stinker like this! We sent it on to our specialist and expert on matters of punctuation. If he doesn't end it all the minute he sees that sentence, we will give his answer in an issue or two.

Don't say "How would you punctuate" that sentence! We wouldn't touch it with a ten-foot pole. Life is real and earnest enough as is.

FLASH: We just received word from our expert. (Since we dragged him into this, we cloak him in anonymity.) He agrees with us that the best advice for anyone in this quandary is for him to leap out the nearest and highest window—or from one of Washington D.C.'s highest monuments. That's the way both of us prefer it, sans commas, but as the expert says, "All the schoolmarms would certainly yell for the awkward style of Washington, D.C.'s, many monuments."

Why not select another setting for the monuments? There are some nice ones in Chicago, and loads of them around Gettysburg.

#### AN OLD SAYING

Concerning your December item entitled "Cherished Superstition," it reminded me of the days when I was an apprentice working under a master printer of the old school who gave you doses of grammar, spelling, mathematics, history, and a broad vocabulary including profanity. I remember this particular saying, which in my present business has been argumenta-

tive many times with customers: "A preposition should never be used to end a sentence with." Said statement is the end of the argument in most cases.

Winston Churchill once won an argument with a similar saying. Of course, it was his copy and he was the boss. There is nothing wrong, on the other hand, in avoiding ending sentences with a preposition, if one doesn't have to make stilted acrobats of the words and meaning.

#### Personal to Jacob

We wanted to answer your candid comment. Unfortunately—and surely unintentionally — while the penmanship of your letter is eligible for an award for clarity, it went hogwild in your signature and name of your firm.

The death of Teall is still mourned in these offices. He knew all the answers, but more than that, he was a good, friendly, and tolerant man. We have no illusion that we fill his place in the world of proofreading.

Joseph Lasky is an esteemed and friendly competitor of this department. He conducts a regular department on the subject of proofreading for the American Printer magazine. We recommend it to you.

But tell us this: If superintendents hire no readers under forty, just where do readers get "a decade or two" of worth-while experience so that they can qualify for jobs?

#### A MAN'S NAME IS HIS OWN

In your quibbling about the spacing of names beginning with particles—le, la, du, da, di, de, et cetera—you apparently overlook the rule regarding the capitalization of such.

We wouldn't dream of overlooking such an important rule; it's right there on page 24 of the University of Chicago Press Manual of Style. It states that the particles are capitalized when they are not preceded by a Christian name or title, but not capitalized when they are preceded by such name.

But following that rule is a paragraph containing this sentence: "Observe any variations in personal signatures." That is our aim. Let a man spell his name as he will.

#### BELITTLIN'

Here's some capitalization I object to: "Ernie Pyle did try to go beyond the packaged attitudes of 'The' G.I. which had been doled out by Yank or the OWI or the liberal press."

Abbreviations of governmental agencies should be in regular caps, especially since OWI looks like *owi* in the type face used by the magazine. *Yank* would be better in italic, while we're being critical.

#### IN THE GUTTER

I have read *Proofroom* department nigh unto twenty years and have received a great deal of help from the same. Your department has settled a few verbal discussions when I get tear sheet from a former issue, which I keep on file.

The problem which confronts me now, and I stand alone: Can a folio for a left-hand page be placed to the right of the page, thus running it into the gutter? The sample enclosed will show you what we are up against.

The rest of the men agree with me that they have never seen it done, but say that it is all right. I maintain it can't be done but have no proof. I suggested we place the folio at the bottom of the page. Your help would be appreciated. (The work concerned is a new type book.)

There's just one slightly tremendous argument against putting the folio of a left-hand page on the extreme right of the page: No one can see it. Even if the book is punched and spiral bound so that it would be flat when open, it still would be difficult to spot the page numbers.

We agree 100 per cent with you that the page numbers should go at the bottom of the page, in this case. Speaking as one who frequently consults type books, we'd suggest that the page numbers be larger or bolder than they are now. (This advice is infringing on Specimen Review, but the boss is on vacation, so perhaps we will get by with it.) What good is an index, if the page number is hidden in the binding (and who would think of looking for it there) or is so modest and light that it is practically invisible?

Thanks for your kind words. Ordinarily we omit them from these pages, but there's a one-man hate campaign on at present, conducted by a reader who bemoans the loss of Teall and the inadequacy of his successor. We want him to know that someone loves and appreciates us.

#### SUPERIORITY IN QUOTES

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We are called upon to proofread the copy of an editor who is addicted to the use of quotation marks, as: William "Bill" Smith, or The saying is a "bromide," or This is my "pet peeve."

My pet peeve is what I regard not only as unnecessary use of quotes but also incorrect usage. Am I right?

You are right. These marks are used as an apology. We like the incomparable Fowler on this subject: "Recourse is had by writers who wish to safeguard their dignity & yet be vivacious, to combine comfort with elegance, to touch pitch & not be defiled. They should make up their minds whether their reputation or their style is such as to allow of their dismounting from the high horse now & again without compromising themselves; if they can do that at all, they can dispense with apologies; if the apology is needed, the thing apologized for would be better away."

Perhaps by querying every single unnecessary quotation mark, you could at least cause the editor to look into the matter. He won't find backing in any modern reference. Such books as "Words into Type" tersely announce: "Do not quote slang. The practice... is not commendable."

#### THE BIG B

In reference to your item "War and Caps" in the December issue, the United Daughters of the Confederacy uses this style: the War Between the States. (Our local Shopping News does likewise.) Since the editors of the Big Webster have often reversed themselves on this matter in succeeding issues, I expect them to do so again.

Thanks for adding to our knowledge on this subject. Seems to us

that the phrase is used mostly in the South—sometimes shortened simply to "the War."

If anyone is wondering why a Shopping News is concerned with the Civil War, it happened in an editorial—a good one, incidentally—like this: "For the first time since the American revolution (Why not Revolution?), with the exception of the War Between the States, the people of our country are faced with a stark test of faith."

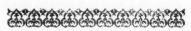
What's that Big B doing on your "Big Webster"? Cap of respect?

#### NOT WANTED

Why do you use the apostrophe in our name? Would you use it for the Jones Press? (The name is The Kays Press. We had it on labels as The Kay's Press.)

Our circulation department reports: "Killed this little disturber on our sub records, so he is resting in peace. Or is he? The little gremlin will rise again, full of tricks, to plague you."

We wouldn't be a bit surprised.



# Half a Century Ago in the Proofroom



A printer of Moline, Illinois, asks the following question about quotation marks, etc., and we have had to make the use of points even a little more involved than it was in his letter: "Is the punctuation of the following sentence correct — using exclamation, quotations, and interrogation at the end? "Why is it that in this great country of almost limitless resources, that should keep every muscle and mind in activity, we hear the despairing cry, "No work! No food!"?"

Answer:—Yes, it is correct. Necessity for such complicated use of marks seldom occurs, but when it does occur they should be used as here shown.

This item—lifted intact from The Proofroom of the nineties, edited by F. Horace Teall—is offered for its historic interest only, and is not for present-day guidance Guess we just had too many apostrophes on hand. And we wouldn't go on record as saying that the Jones Press would never appear as Jone's Press. In this world, anything can happen and usually does.

#### JACK OF ALL TRADES

How much should be expected of a proofreader on a small daily newspaper? We average twelve pages a day, with one proofreader to handle all straight matter. As foreman, my problem is that our news room (even the boss himself) expects the proofreader to not only catch the errors the operators make but to also check the proofs and copy for wrong addresses, misspelled names, and to take full responsibility for such errors. I maintain that when we receive it, copy should be correct and exactly as the reporters want their stories to appear in the paper. But when errors of fact go through, we catch you-know-what!

You must have a long-suffering proofreader—one who loves the work deeply indeed. This is the strangest situation we ever heard of (or, if you prefer, the strangest situation of which we ever heard). There's no reason why a proofreader should take on editorial responsibilities, unless he or she owns stock in the

company.

On the other hand, why should a newspaper tolerate a reporter whose accuracy must be under constant surveillance? In newspaper offices with which we are familiar, such a discredit to his profession would have been bounced out of the door, but fast. Let your boss give the you-know-what to his staff on the subject of the first requirement of good reporting: Accuracy. Or move your proofreader into the newsroom and get yourself another proofreader.

Come to think of it, maybe the reporters own stock. Must be some sensible explanation for this weird state of affairs.

#### "GRRR-AMMAR"

I thought you should appreciate the following, which appeared in printer's house magazine: "An upstate friend, prompted by a recent issue's example of grammar that groans, writes about his company's salesman who was frustrated about the service being rendered by the home office. This was the salesman's final sentence in his letter pleading for action on the home front: "The customer certainly can't understand why we are so hard to get what he wants from."

The quotation is from Reflections, published by the E. F. Schmidt Company, of Milwaukee. We like it and trust that our readers will, too. We also like the new 1951 covers of Reflections, sketches which illustrate various proofreader's marks.

# Here's Our New Contest Worthy of Any Compositor!

### How Would YOU Set This Contest Ad?

Are you an all-around typographer? Here is your opportunity to prove your typographic skill to an international audience—and also earn a nice dividend!

THE INLAND PRINTER has recently conducted contests testing the business card and letterhead abilities of compositors. The handling of the following single-column 2¼-inch advertisement confronts the artisan with limitations at every turn. In order to encourage the development of skill in this type of composition, THE INLAND PRINTER offers five prizes for the best settings of the following ad:

### Copy:

GROW PLANTS WITHOUT SOIL. Genuine Holland hyacinths in glasses. Cups fit any glass or jar. Large winter blooms in variety of gay colors. Ideal gift for holiday, anniversary or other special occasion. We will send you 5 hyacinths, one each white, pink, China blue, bright red, sky blue; also 5 hyacinth cups and complete instructions—for only \$2.00. Three orders \$5.75. Shipped postpaid to any address. Hyacinth Gardens, Inc., Dept. HG, Bloomfield, N. J.

### Prizes:

First prize: a check in the amount of \$25.00.

Second prize: a check for \$15.00.

Third prize: a check for \$10.00.

Fourth prize: a two-year subscription to THE INLAND PRINTER.

Fifth prize: a one-year subscription to THE INLAND PRINTER.

Duplicate prizes will be made in the case of ties.

### Rules:

The contest rules are simple: Use the exact copy as given, and the exact space—12 by 13½ picas. Aside from that, set the advertisement in any way you please to achieve the best effect. Then take three good proofs of the advertisement and mail them, unfolded, to THE INLAND PRINTER, 309 West Jackson Boulevard, Chicago 6, Illinois. Closing date of the contest is March 31, 1951.

Give this problem your immediate attention, set a mean stickful, and good luck to you!

### I.P. BREVITIES

Stray items about the trade and the men who make it. Bits of information collected and set down here for your edification and pleasure. Edited by GEORGE EATON

- \* Graphik, a German periodical, recently published information as to the effects of various colors on human beings. Experiments have proved that most women prefer to wrap gifts in combinations of red and blue. Next in forcefulness-from an advertising standpoint-are combinations of red and green, then red and yellow. The average woman's preference for red and blue has been deduced to be her instinctive desire for mental balance. Red was found to stimulate the blood circulation, not only by visual perception but also through absorption of its rays by the skin. Blue was found to have a definite calming effect and to be man's favorite color. Yellow appears to enjoy the preference of intellectual men and women and is said to gain in popularity with all people after their fiftieth year.
- \* Announcement of the recent death of Mrs. Sallie Lindsay White, widow of William Allen White, brought to mind the fact that in 1895 Mrs. White persuaded her husband to purchase the Emporia (Kansas) Gazette on a \$3,000 loan and a capital of \$1.50. Later Mr. White, the Sage of Emporia, credited much of his success to his wife.
- \* Friendly Cheer Magazine put the ball right down the alley when it opined:

When a plumber makes a mistake, he charges twice for it.

When a lawyer makes a mistake, he has a chance to try the case again.

When a doctor makes a mistake, he huries it.

When a judge makes a mistake, it becomes the law of the land.

When a preacher makes a mistake, nobody knows the difference.

BUT when a printer makes an error ... Good Night!

\* There is a new street in the Castle Museum, at York, England, called "Princess Mary Court." The shops in the court have fronts and doorways of Georgian and Regency periods, obtained from demolished buildings. The trades in York during the nineteenth century are represented there. The Book and Stationery Shop is named after William Alexander, Quaker pub-lisher and printer, who founded the present business of William Sessions Limited. A printing office is being moved to a new wing where, it is hoped, an exhibit of old-time printing methods will be in working condition in time for the Festival of Britain.

- \* Artist Lumen Martin Winter's oil painting Amber Waves of Grain, purchased by American Type Founders for demonstration reproduction at the Sixth Educational Graphic Arts Exposition last fall, resulted in more than 15,000 requests for prints during the show. They were filled from demonstration runs made on a four-color web-fed Webendorfer at Chicago. The operator was Schultz Lithographing Company of Chicago. We are told that copies are available free of charge to anyone who wishes to have the picture.
- \* John Gould, author of "And One to Grow On" and "Farmer Takes A Wife," publishes and edits the colorful Libson Falls (Maine) Enterprise.
- \* Anon., that clever writer, has come up with a redraft of Abraham Lincoln's memorable Gettysburg Address:

"One score and sixteen years ago our fathers brought forth upon this nation a new tax, conceived in desperation and dedicated to the proposition that all men are fair game.

"Now we are engaged in a great mass of calculations testing whether that taxpayer or any taxpayer so confused and so impoverished can long endure. We are met on Form 1040. We have come to dedicate a large portion of our income to a final resting place with those men who spend their lives that they may spend our money.

"It is altogether anguish and torture that we should do this. But in the legal sense we cannot evade . . we cannot cheat . . . we cannot underestimate this tax. The collectors, clever and sly, who computed here, have gone far beyond our power to add and subtract.

'Our creditors will little note nor long remember what we say here, but the Bureau of Internal Revenue can never forget what we report here. It is for us the taxpayers rather to be devoted here to the tax return which the Government has thus far so nobly spent.

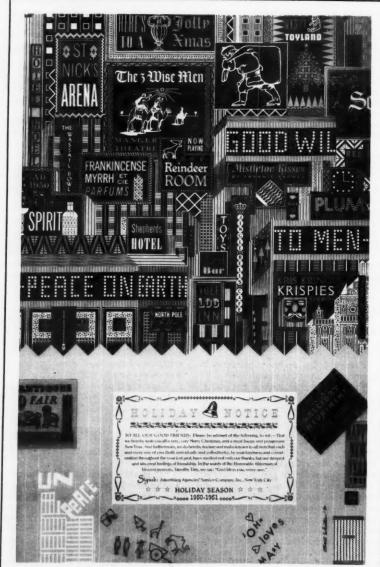
"It is rather for us to be dedicated to the great task remaining before us that from these vanished dollars we take increased devotion to the few remaining; that we here highly resolve that next year will not find us in a higher income tax bracket; that this taxpayer, underpaid, shall figure out more deductions, and that taxation of the people, by the Congress, for the Government, shall not cause our solvency to perish."

The Ohio Printers Federation Bulletin uncovered the above.

- \* More than two hundred greeting card publishers in the United States produce more than three billion cards annually. It is estimated that nearly one hundred million dollars is now spent each year to mail greeting cards of all types and for all occasions-a sum representing approximately 10 per cent of the government's first-class mail revenue.
- ★ Wanted—Automatic screw machine setup men, who can bring own 5-spindle Warner and Swasey Screw Machine, costing approximately \$20,000, will be given preference. Apply personnel office, Aeroquip Corporation. This and other classified advertisements in the Jackson (Michigan) Citizen Patriot were placed by the Aeroquip Corporation to graphically prove that its stockholders provide the tools so employees can earn their wages. It is estimated that \$10,000 is the average investment in facilities and tools at this plant for each job, that 10.3 per cent of the money it received from customers during 1950 represented the cost of using tools but that actually only 1.2 per cent was paid in dividends to the stockholders.
- ★ A bronze tablet in memory of Ottmar Mergenthaler, inventor of the Linotype, was presented to the Johns Hopkins University on December 5, in the campus building which bears his name. The plaque is the gift of Herman Mergenthaler and Pauline R. Mergenthaler, son and daughter of the inventor. The bronze tablet will be placed on the second floor of the university's Mergenthaler Hall. This building was erected nine years ago through funds provided by another of the inventor's children, the late Eugene G. Mergenthaler, who was graduated from the university in 1905.
- ★ Cedric Adams in his Minneapolis Star and Tribune column again added up the many talents of that busy B., Benjamin Franklin. Ben gave us the old-fashioned stove, bifocal glasses, the first library, and that long pole used in grocery stores to reach articles on the top shelf. Rare Ben Franklin was the first to advocate the use of copper for roofs. He formed in the United States the first fire company, the first fire insurance company. He was the first to point out that white clothes are the coolest wearing apparel in summertime and it was his idea to pave and light streets. He is worthy of all honor paid his memory.

- \* Robert Giegengack, brother of Augustus E. Giegengack, is well known throughout New England for his outstanding work at New Haven as track coach for Yale University.
- ★ The Cincinnati Enquirer recently observed that every year American newspapers use enough forest to make a mark on the world's map, 2,000 square miles. That's the equivalent of a strip of forest about three and one half miles wide running from New York to Chicago.
- \* The American Bank Note Company, the Interchemical Corporation, and United States Playing Card Company are among 238 firms throughout the United States and Canada awarded certificates of management excellence for the year 1950 by the American Institute of Management, New York. The awards, which will be made annually, are based on excellence in the following ten fields: economic function, corporate structure, health of earnings growth, fairness to stockholders, research and development, directorate analysis, fiscal policies, production efficiency, sales vigor, as well as executive evaluation.
- \* The Springfield (Ohio) News and Sun had the following eulogy on John W. Ogg, well known in labor circles, who died December 12: "Through a whole generation as a labor negotiator for the typographical unions of the Ohio Conference, John Ogg never had to take refuge in a work-stoppage. He was a remarkable specimen of what union leadership can be at its best: tough-minded but not tough, devoted but not fanatical, strong-willed but not blindly stubborn, proud but not arrogant. His fair-mindedness and integrity were respected by management as highly as by labor."
- ★ The Grand Rapids Herald recently saluted Herman Whitfield Verseput, who has completed fifty years of service with the Dean-Hicks Printing Company. "Learn a trade, stick to it, and have at least one hobby," is Mr. Verseput's advice. He began his trade as a printers' devil and now handles all estimating work. Stamp collecting, photography (he and his wife took a trip East financed by his picture-taking activities) and oil painting are his hobbies. His son Ward is in his fifth year of post-graduate work at the Institute of Paper Chemistry in Appleton, Wisconsin.
- \*In the main building of Ransdell Incorporated, of Washington, D. C., is a 4½- by 5½-foot painting titled "Heritage of Printing" done by Floyd Greene, Ransdell art director. The tribute in oils to the graphic arts depicts a colonial hand press and an early American printer. Superimposed in the upper background is a scroll with a tribute to printing.

- \*The Mexican government has announced that a \$23,000,000 newsprint plant will be built near Temosachic, Chihuahua, near the United States border. The plant is expected to be in operation in 1952. It is estimated that the plant will produce more than Mexico's \$10,000,000 present annual newsprint import. Newsprint in Mexico is regulated by the government control agency Pipsa. The continued rise in the price of newsprint and difficulty in obtaining enough newsprint have prompted the decision. Orders for machinery have been placed in the United States.
- ★ On Monday, January first, the *New York Times* entered its 100th year. The issue reviewed the past century.
- ★ Flair magazine suspended publication with the January issue. Production costs are said to have risen more than 35 per cent since the magazine was first published in 1949. Add the seriousness of the foreign situation and the possibility of paper shortages and you have management's opinion that the factors "make unwise" the continuation of the publication of Flair. The magazine was stimulating.
- ★ The Detroit Club of Printing House Craftsmen's "Man of the Year" award, which highlighted the Graphic Arts Memorial Dinner and Annual Meeting of the Graphic Arts Association of Michigan during Printing Week, went to C. C. "Cy" Means, able manager of Graphic Arts Association of Michigan.



The craftsmanship of Albert Schiller, art director, Advertising Agencies Service Company, creative typographers, has been demonstrated for the past quarter-century. But never more effectively than in the above example of his art work with rules and type ornaments

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## "The Answer in the Book"

By Charles F. King

 LITHOGRAPHY as it is preached and lithography as it is practiced are often very, very different. Recently a plant superintendent who has appeared on many panels of experts at clinics and forums told this writer that on numerous occasions when he has been asked the best way to perform a certain operation or the best material to use for a particular purpose, he has given "the answer that is in the book," although he was not using that method or material in his own plant. On some occasions he has given the "correct" answer even though he knew that method or material had been tried in his plant and had failed to do the job claimed for

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> It appears that much the same condition exists rather generally throughout the industry: lip-service is paid to new ideas but in actual production much the same technique is followed as has been done for years. The pressmen go ahead making commercially acceptable reproductions by the methods they have used for years; the platemakers still produce good plates in much the same manner as they did when they were apprentices; and in many instances the color-correction artists and photographers ply their trade in a way very similar to that which they were originally taught.

> The fact that such a condition exists in an industry which has a reputation for being progressive might appear strange to someone on the outside, but when one considers that these men know that thousands and thousands of plates made according to their standard procedure have printed untold millions of salable impressions, it is no wonder that they are very hesitant in making changes.

In order for a new idea, a new material, or a new method to be acceptable and to become a part of the established routine it must fulfill at least one of the following requirements: greatly improve quality; save camera-hours, press-hours,

man-hours, or spoilage; or make the process simpler or foolproof. It should under all conditions be more reliable and more dependable than the material or method it is intended to supplant. Also, any additional cost arising from its use must be absorbed by savings in other operations unless improved quality is great enough to warrant the greater cost.

One part of the process which appears to be under a constant barrage of new ideas and materials is the platemaking operation. Apparently this is because the platemaker is always in the middle. This may be taken both literally and figuratively. Not only is he in the middle when the chronological steps in the process are enumerated but he is in the middle where he receives the criticism of both the photographic department and the pressroom. Hence it is he

Opp idea

One written order "write it!" is better than a dozen arguments and alibis.

Make a record of what you want done—when, how, and by whom. A written record doesn't forget or offer alibis. It fixes responsibility, prevents delays, and ends excuses.

Examine your printed forms. Assemble them on your desk for study. You'll find some should be thrown away. Others need changes. Possibly new forms should be created.

Well-printed forms on an economical paper—like Hammermill Bond—will keep things moving and prevent costly mistakes.

Let us help you apply the use of printed forms more effectively to your management needs.

Credit for the above printing promotion copy is due the Paris Printing Company of Kansas City

who always appears to be in the center of any troubles which may occur. Hence it is upon him that the greatest attention is centered by the would-be-improvers of the process.

It is to the platemaker that the greatest number of new products are continually being offered. It is to him that suggestions are constantly being made on how to improve his plates and eliminate troubles. One could easily be led to think that platemaking as it is practiced is based on some sort of "close your eyes and hope for the best" technique. In fact, based on all of the things which are constantly being written and said about platemaking, one would think that any time a good printing plate is made it is strictly a matter of luck. Luck can be good or bad.

Those who are even remotely connected with the industry know that this is not the truth. They know that the vast majority of plates are good enough to do the job for which they were intended. Perhaps they are not as perfect as one would like to see them. Likewise the plates may not have just the exact tone range that is desired, nor print as full or as sharp as was expected. It may be that they do have a tendency to scum or the pressman cannot make them last through the edition. Certainly these are faults which should be corrected, or at least attempts should be made to reduce the frequency with which they occur, but, by and large, bad plates are the exception rather than the rule.

It therefore appears that it might be wise to reverse much of the thinking of technical experts and others. Instead of looking for reasons why troubles occur, let us look for the reasons why the vast majority of the plates made are good. Thus instead of continually trying to substitute materials and techniques in the platemaking process, the approach to the problem should be directed toward trying to find why the methods and materials now in use do such a good job. Then, perhaps, some of

the reasons why they occasionally fail might become obvious, or at least more easily discovered.

Such an investigation might start with the albumin process. The use of egg albumin combined with ammonium dichromate as a means of transferring a photographic image to a plate, and using the light-hardened albumin film as a grease-receptive surface for lithographic printing antedates the offset method of printing. During the intervening years between its discovery and World War II a vast store of knowledge was built up concerning this process. One of the principal factors which contributed to its successful operation was the Lithographic Technical Foundation's booklet, The Albumin Process of Photo-Lithography. This, together with platemakers' observations, brought this process to a point where high quality reproduction could be expected from it and runs of seventy five to one hundred thousand or more impressions could be expected from one set of plates.

Although some few platemakers had brought their routine method of producing plates to near-perfection through the use of fresh egg whites as their source of albumin, for the most part egg albumin scales imported from China formed the basis of the coating solution. Toward the latter part of this period ready-prepared albumin solutions began to be rather widely accepted.

#### Search for Substitutes

When the imported scales became scarce because of the war, domestic sources were investigated. Since very little effort had been put forth to find out why the imported product worked satisfactorily, the only way of determining whether a domestic albumin would work all right was to use it in making plates. Some worked well and some did not. The ability to produce good plates varied even from batch to batch from the same source. No one knew why, and apparently there has been little effort on the part of anyone except certain branches of the armed forces to find out what constitutes a good grade of albumin for lithographic purposes. Some suppliers of ready-to-use coating solutions have, however, found means of handling the domestic material to make it dependable.

In the meantime innumerable attempts have been made to find substitutes for egg albumin. In most cases these attempts have fallen by the wayside simply because they entailed the use of techniques different

from those required with standard material. In other instances it was necessary to incorporate additional steps into the process in order to make good plates. Generally the chief claim for these substitutes was that they were made from materials of known or controlled composition and were not subject to the vagaries of naturally occurring products. Such claims have little or no appeal to the journeyman. In their estimation a material is superior when it can be handled in the same way as the material to which they are accustomed and at the same time produce plates which will print as sharp or sharper, develop as easily or easier, and greatly reduce spoiling plates.

#### Other Natural Products

The fact that few if any of these substitutes gained or held any degree of popularity attests to the fact that they did not fulfill the above requirements. Imagine the chagrin of one supply salesman when he attempted to convince a platemaker that his substitute would give longer runs and he was informed that he did not need anything that gave longer runs. The platemaker told him that they were getting four hundred to five hundred thousand impressions from one set of plates, and they never printed larger editions. The material they were using was egg albumin.

To condemn a product simply because it occurs in nature and is therefore subject to rather wide variations in composition due to natural causes can hardly be considered a constructive approach to a problem. Had this attitude been taken by the medical profession, the progress medicine has made over the past century would have been impossible. Penicillin and the rest of the anti-biotics, quinine, and a host of lesser known drugs were discovered because they occurred in nature. Real progress has occurred only when they have learned how to use them; how to compensate for the irregularities found in the natural product; how to isolate or extract the portion having the curative properties; or how to identify the active part. After the portion with the curative powers has been identified, attempts can then be made to build or synthesize a similar or improved product. In the meantime, people still go on being cured by the naturally occurring product.

Another natural product which has come in for considerable criticism and discussion is gum arabic. At times certain grades of this have given trouble, especially in manufacture of deep-etch coatings, but in general it has been found to work satisfactorily in lithography ever since the process was discovered. It would be rather foolish to say that there could be no material discovered that could do a better job of desensitizing plates, but the question is: Is one needed?

Etches can be made from gum arabic which will eliminate all trace of scum from an albumin plate and gum can be applied to protect the water-receptive areas of the plate until it is put on the press. Plates desensitized and protected with gum will print as clean and sharp as it is possible to print from a grained zinc or albumin plate, and if properly handled, run until the grain is worn so smooth that it is no longer capable of carrying enough water to keep the open areas clean. The above statements are based on years of experience by hundreds of men in the industry who have daily been making plates from which salable sheets have been printed in many shops all over the world. The only trouble is that these men are seldom heard from. It is the isolated cases of troubles here and there on which most of the attention is centered, and hence they receive most attention.

#### Coatings and Gum Solutions

Certainly there is plenty of opportunity for investigations to find out in what manner gum arabic or mixtures of it and other chemicals accomplish desensitization. Considerable work has been done by suppliers in improving the quality of deep-etch coatings and gum solutions supplied for preparing them. More uniform gum solutions can also be purchased for use in etches, fountain solutions, and for gumming plates. What constituent or what portion of the material is actually responsible for making the non-work areas of the plate ink-repellent, and in what way the gum reacts with the plate metal to accomplish this, are still matters of conjecture. Several theories have been advanced but in each case positive proof has been missing.

Since gum arabic and albumin are the materials most frequently subjected to criticism, and the two for which many substitutes have been suggested, it might appear that they were the two generally considered to give the most trouble. In part this is true, and many products have been recommended as replacements because they were supposed to do the job better. Some substitutes, of course, have been developed simply

to take the place of these materials should they become difficult to get during an emergency period, but in general these have not been recommended as being superior to the original products.

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At present there are completely satisfactory grades of both gum arabic and albumin available from the supply houses. With the assurance that these and the other platemaking chemicals will make zinc and aluminum plates which will run all but the longest publication and label editions, platemakers are justified in continuing with the materials they know instead of continually trying new ones in the hope that they will eliminate the occasional bad plate. If a shop has never been able to produce good plates which will run trouble-free for the whole edition, the shop should not blame the materials, and it is very doubtful if changing any or all of the solutions used will give more than temporary relief.

What the industry needs to find out is why so many plates run so

well. Certainly there must be much more information obtainable on this subject than on why a plate or a series of plates are spoiled in a shop here and another shop hundreds of miles away. With the role of the chemicals used in platemaking completely eliminated from consideration, the problem is somewhat simplified. There is still much to learn about the process, however, before such a project can be carried out. How can a positive or negative which has produced a satisfactory plate be completely described? How can the grain on a plate which ran one hundred thousand impressions be described to show the difference between it and the grain on a plate which ran only twenty-five thousand impressions? The conditions under which acceptable plates are exposed, developed, and finished should be carefully observed. Had such a study been undertaken earlier, the effect of temperature on exposures, which has recently been explained in LTF literature, undoubtedly would have been discovered much sooner.

No such study could be complete without a study of the plate on the press. If the pressman is going to be required to underpack the plate and overpack the blanket in order to make the last colors fit, the life of these plates can be expected to be shortened. Likewise roller settings and condition of rollers and dampeners should be noted.

#### Ink Plays Important Role

The amount of ink necessary to print the correct density of color also plays an important part in the life of a plate, as does the amount of water and the strength of the fountain solution. To make the picture complete, the kind of stock on which the jobs are run should be considered, as should the color and kind of ink. With this information at hand it would at least be possible to say what constitutes a good plate from the platemakers' viewpoint. If the pressman, through carelessness or necessity abused the plate, there would be no excuse for blaming the platemaker.

This may all sound too simple but it is by no means an attempt to say that all of the problems in lithography have been solved. Instead, it is an attempt to point out means by which experimental work and research activity can be channeled into the spots where it will do the most good. Finding out within any one plant why good plates are good should not be too hard, and every plant could at least keep case histories on plates both in the platemaking department and on the press. Since it is at present impossible to record any figures regarding the quality of the grain or the positives or negatives, these can only be passed upon by visual inspection. (If too many bad plates appear for unexplainable reasons, these must be given special consideration.) Likewise the qualifications of the craftsmen can only be judged on the same basis.

To attempt such a program on an industry-wide basis would undoubtedly lead to complications, but if such a program could be arranged it should lead to simpler rather than more complex methods being recommended as standard procedures. Then the expert on the panel would be giving not only the answer in the book to the questioner, but also the method which had been found to be the best for the industry in general. It would not be information which was supposed to be correct because someone who wrote a book said that it was true.

### **Formula**

## FOR FIGURING WAGE INCREASE PERCENTAGE IN TOTAL COSTS

There are several ways of ascertaining the percentage required for recovering increased wage costs in estimating and accounting. Remember, however, that all such methods are subject somewhat to the individual conditions found in various plants. For those having accurate accounting and cost finding records, the following formula works out very accurately when applied to your own proved figures.

1. Where a plant's estimating is done on a COST basis, to which mark-up for profit is added later, a percentage increase in hourly cost rates equal to two-thirds of the percentage increase in wages will ordinarily recover the direct and indirect wage increase.

2. Where a plant's estimating is done on the basis of departmental SELLING rates, including a normal mark-up for profit, a percentage increase added to these selling rates equal to one-half of the percentage increase in wages should ordinarily recover the indirect wage cost.

Based upon cost rates, an increase of 14 per cent in wages, for example, should be recovered by an increase of 9.3 per cent in hourly cost rates before profit mark-up is added. Similarly, an increase of 14 per cent in wages should be recovered by an increase of 7 per cent in departmental hourly selling rates which are inclusive of normal profit mark-up.

Typo Topics, Printing Industries of Philadelphia



Send in your queries on any phase of lithography for answer by Charles F. King

#### GRAIN WRONG WAY

We have occasion to process through office duplicators several million forms annually. Many of these forms are 81/2 by 11 inches and are furnished to our plants and offices with the grain running the short way. While such forms are workable, they do not permit us to obtain maximum efficiency from the duplicators and often are the cause of considerable spoilage. These forms have been furnished to us by photolithographers who have always requested the grain in the large size (22 by 34 inches) sheet to run the long way. The paper is a 16 pound number 4 sulphite duplicator, In your opinion and experience with such a type sheet, do you feel that there would be any difficulties resulting in increased cost to us should we insist that the sheet grain direction be changed? We would hesitate to make this change if offset feeding troubles were to cost us more than the calculated savings in increased duplicating efficiency.

Since receiving your letter I have seen some of these duplicator troubles which you mention and I believe that you are on the right track. As far as printing a sheet by offset with the grain running the short direction, as long as the paper is flat when received by the lithographer and kept in that condition, it should give him no trouble in feeding. Of course paper tends to stretch more against the grain than it does in the grain direction and if there is any tendency to wrinkle it will be greater in this direction and hence give more trouble in feeding.

This tendency for paper to expand more across the grain as it picks up moisture has been one of the principal reasons why lithographers have standardized on long grain sheets. As the sheet goes through the press it picks up moisture and stretches, if it has not been preconditioned to a humidity considerably higher than that of the pressroom in which it is being run. On subsequent trips through the press the colors will not fit. It is a relatively simple job to increase the length of

the print by underpacking the plate and overpacking the blanket and thus make up for the stretch. It is well nigh impossible to distort the print along the axis of the cylinder to make up for any distortion of the sheet resulting from previous impressions. Since you are only concerned with one-color printing this problem would not have any bearing on your work.

You may, however, run into some trouble in getting stock supplied to your lithographer which is grain short.

#### PLATES NOT PROTECTED

We are enclosing some samples of offset work we have been trying to get off on our Little Chief Webendorfer Press. We ran into a lot of trouble when we first tried to run the cover which has a heavy solid and finally had to farm out the job on this side to a local printer who ran it for us on his Harris. The inside of this bulletin had no heavy solids so we felt we could run it ourselves.

We ran the blue first. We got along fine with the first press load. Then just as we started up again after reloading the press we found streaks showing up right across the sheet. These streaks are about one inch apart. Washing the plate and blanket has little effect on them. After running about fifty to one-hundred impressions we were as bad off as before. The only way we can see to get a job off if it takes more than one loading is to install a new plate. This is very expensive. Our plates are made of aluminum and are thirteen thousandths thick. The blanket is new and with the packing it is seventy-three thousandths. We use good inks.

When we started out on the black we had put on clean water rollers and everything on the press was checked and clean. We ran into trouble again as soon as we had to reload the press. Having only one plate for this black, we had to give up before we had completed the run.

As soon as I read your letter I became suspicious that you were not following some part of the custom-

ary routine of lithographic press operation, or if you were, you were doing it either carelessly or improperly. Upon examination of the sheets which you sent along, I found that my suspicions were confirmed. The streaks you mentioned are composed of sharp round dots undoubtedly caused by the oxidation of the metal plate.

Although aluminum plates do not oxidize as rapidly as zinc, they nevertheless must be protected by gum arabic when the press is shut down for a few minutes. Hence the standard practice in press operation is to immediately throw off the dampers before stopping the press to change a load. The plate is then gummed and the gum dried down with the press running at idling speed before any attempt is made to remove the sheets from the delivery or reload the feeder.

Streaks such as those which show on your work could be caused by careless gumming, with little or no gum having been dried down upon these areas, but they appear to be too regular to have been created in this manner. Actually it seems as though there had been little or no gum applied to the plate or else the dampers had been left on when the plate was gummed and had removed that which had been put on. The streaks are so uniform that they appear to have been caused by the dampers themselves, which, although they may not have been left in contact with the plate itself, were close enough to it to make the atmosphere damp enough to cause oxidation of the plate. The fact that there are a greater number of streaks than there are dampers indicated that the press must have been stopped in a number of positions so that various sections of plate were stopped in line with the dampner rolls. Since the intensity of the streaks varies it indicates that length of time in which the plate remained in these different positions also varied.

Of course, it is not possible to be positive that an analysis such as I have made above is correct, and what I have said may seem very elementary to you. However, if you are observing all of the above precautions, please write to me further and give me any information which you can concerning the type and strength of the fountain water solution you are using, type of plate (whether deep-etch or albumin), and details of the practice which you generally follow when you are changing loads. Then we can go into

the matter in more detail.

### By EUGENE ST. JOHN



Questions will also be answered by mail if accompanied by a stamped envelope. Answers will be kept confidential upon request

### DIFFERENCE IN COLOR

Enclosed are two printed reproductions of different sizes but both made from the same negatives, black and one color. What we would like to know is, why is the color (green) brighter on the larger than on the smaller print?

There are several reasons why the green on the smaller print is duller than on the larger print. The smaller print is out of register in both horizontal and vertical directions. Consequently dots of the black halftone plate print over dots of the green halftone plate where they were not intended to and the black has turned the green by mixture to a dull olive instead of a bright green.

The green on the smaller print was the first-down color when it should have been printed last. The green on the smaller print is a chrome green which is opaque and not as bright naturally as the green lake used on the larger print.

Light penetrating a transparent color is reflected back from the glossy coated paper and the color is thereby brightened. But the opaque color lacks this advantage.

In two-color halftone prints reproducing a natural scene, the black plate should be printed first. The overprinting color should be a transparent ink and in this case, the brightest (green lake). Finally, the black and green prints must register else the black dots printing where not intended on top of the green dots will nullify the attempted reproduction by dulling the bright transparent green by mixture to a dull olive.

### SHEET-FED STEEL DIE PRESS

In the June, 1950, issue of THE IN-LAND PRINTER there is an item that concludes: "In this country, for some time, the die presses have been fitted with roll feed for use on long runs and recently these presses have been made with automatic sheet feed." We would certainly appreciate your forwarding to us whatever information you have on sheet-fed engraving presses since to our knowledge there are none in existence except those still in the experimental stage.

We were informed that sheet-fed steel die presses were in operation at the 1950 convention of Steel Die and Copperplate Engravers and Printers in Detroit, and that one sheet feeder comes from Detroit and the other from Portland, Oregon. It is proverbial that it takes at least three years to find and get the bugs out of a new printing device. We recall the first sheet feeder for letterpress platens and its initial tryout in a printing plant in New York City, and other similar feeders of that period. It was not until 1913 that the Miller feeder, of which nearly thirty thousand were sold, appeared. It has been surpassed in efficiency by the feeders of today and still a Miller feeder was in operation the entire week of the Boston Printing Exposition, 1922, without missing a single impression. "We were there, Charlie." So don't give up on your new feeders.

### STATIONERY PRINTING EQUIPMENT

In the near future we expect to establish a stationery shop and need some information badly. We must obtain a steel die stamping and copperplate printing press and supplies for stationery work. Also would like the name of a good magazine concerning stationery work and engraving. A big part of our work will be printing but we will need the above supplies. Would also like to learn about firms making small advertising cuts and cuts that can be used on stationery.

We are sending you the names of suppliers of equipment for stationery engraving and printing, as you requested, and the names of firms supplying cuts. From these you may obtain the name of the magazine you describe, if there is any such.

### SONOR COUNTER

Please send us the address and company name of the maker of the Sonor Counter described on page 72 of your December issue?

Innumerable uses may be found for such a counter in the printing and stationery fields. The costlier the sheets, the more valuable such a counter. Name has been sent.

### SNAP-OUT PRODUCTION

The article in the December issue on snap-out production mentions a special penetrating glue for padding the completed sets. What is this and where can we obtain it? We have produced several snap-out jobs in small quantities for customers who could not wait out the delivery schedule of snap-out specialists, and our principal headache was the padding. We tried a variety of cements and padded down the sides to the line of perforation as well as the top but the result was not satisfactory.

Incidentally, a couple of friends with a few thousand dollars and some experience in selling these snap-outs have been badgering me about going into the business on a competitive basis. It's my impression that to get into this seriously would require more money than any of us dream about. What about it? Could you give me a line of the machine or machines best suited to this work and an approximate idea of the investment we would need?

Whether the multiple billing field is entered on a small, medium, or large scale, the route is well charted and suitable equipment and supplies are on the market. This specialty is produced by letterpress, offset-lith, and aniline processes, and on both sheet-feed and roll-feed presses with exception of fanfold forms, printed on rotary presses from the roll. You may get a complete picture from the manufacturers listed in the annual directory in the December issue.

### INK PROBLEM CHART

I am thinking of designing a circular "Question and Answer" wheel on pressroom ink problems. A local ink manufacturer might be interested in such an idea if I can find the proper information to include on the wheel. Of course, this is merely speculation. No matter how good an idea may be, it's only as good as its execution. I would appreciate it if you could tell me where to write for ink pressroom problems, and if any simplified charts, et cetera, have been put out in recent years. I am interested in letterpress, offset, and aniline ink problems.

One of the leading inkmakers put out an "Ink Trouble Chart" many

years ago in the form of a table in four columns; the first is headed "Complaint," the second "Identification of Complaint-Method of Detection," the third "Possible Cause," and the fourth column, "Possible Remedy." This chart, either in original or amended form, has been reprinted in all of the magazines of the graphic arts and in many other publications. As this chart was published when aniline printing was just making an obscure debut in this country, it was devoted to the old line inks of the commercial printer and lithographer. This chart in an amended form has been reprinted in the "American Ink Maker" and Wolfe's handbook, "Printing and Litho Inks," in recent years. It is the most prolific source of information on ink troubles-in its amended forms, naturally, since many of the major improvements in the manufacture of inks have been accomplished since the original chart was issued. Obviously, the popular chart will be subject to change as time goes on.

Diagnosis will always be the most important step in the correction of ink trouble. Many "ink troubles" are not due to ink but to some other pressroom factor such as unfavorable atmospheric conditions, nature and condition of the form, press, rollers, stock being printed, makeready (including quantity of the ink run), and so on. It is not always easy to diagnose an ink trouble, but the pressman who is equipped with a good magnifying glass will find the chart above described very rich in suggestion.

### CHEMISTRY OF ADHESIVES

Through reference you have been recommended as a source that will advise us where we might find the latest data in respect of the chemistry and technology of glue, gelatin, and other adhesives.

You will find the technology divisions of the public libraries of Chicago and Cleveland helpful. For the latest reliable information, consult the firms listed under "Adhesives" and "Adhesive Tape" on page 88 of our December issue. Also see in this annual directory section the firms listed under "Gummed Cloth Tape, Gummed Hollands, Gummed Label," "Gummed Offset," and "Heat Seal Label" on page 122.

Adhesives are usually formulated for specialized applications, especially the newer resin adhesives, so you will profit when writing to above firms by giving full specifications as to requirements and conditions of the use to which it will be put.

One of the best adhesives is photoengravers' fish glue. Only a dozen firms in the world make fish glue. Only five in the world can make a satisfactory photoengravers' glue, and only two of these five are in America. Just two fish, the salt cod and cusk, and the required technical skill can supply satisfactory photoengravers' glue. Good as it is, it might not be best for your purpose, so let the adhesive supplier know requirements and conditions.

### WAX PROCESS SPOT CARBONIZING

Please advise us if you know of any source of supply of wax process spot carbon on the back of checks.

There is a firm which does this work for the trade. (We have sent you the name.) Some printers will be pleased to learn that a moderately priced hot spot carbonizer now on the market takes sheets up to 17 by 22 inches and spots 3500 sheets per hour, enabling the printer at last to do this work himself. It's a very useful tool in the check and multiple billing fields.

### GOLD INK ON NAPKINS

Please advise us whether we can buy a gold ink that will look like gold when printed on napkins and not like something the cat left behind. We have had a need for something like this since we do not favor the use of gold stamping presses for this purpose, these being, in our opinion, slow and bothersome.

In order to make the most of gold ink on such crepelike material as napkins (or on any paper except coated) it is necessary to resort to two bumps in printing. The first impression is made in special gold size. When the size is set but not bonedry, the gold ink is printed on the size. If you will send sample of the napkin to the inkmaker, he will supply suitable size and gold ink.

### STATIC BRUSH

We are interested in the static removing brush described in the December issue. How useful is it?

The static brush mentioned should be welcomed by those who have been troubled with pinholes in transparencies used in platemaking. We have sent the maker's name to you.



### SNAP-OUT FORMS

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We were very much interested in the item on snap-out forms in your December issue. We have done some of this work and would like to do more, and so we welcomed the ideas in the article. Will you please send us any additional information you may have on the suggestions contained therein as to the depth of the racks, the number of bins in the rack, and how it could be built to hold eight printed forms and seven carbons? We would also like to know the source of supply for penetrating glue, preferably for cold applications. We have a snap-out job to do at present.

For an up-to-date, reliable picture of the best production methods in the snap-out and other multiple billing field, your best sources of information are the manufacturers of collating and tipping equipment used in connection with sheet-fed presses.

### LAMINATING EQUIPMENT

We apply to you in regard to information concerning machines for laminating or varnishing the covers of books with a thin film like cellophane in appearance. We hope that you can let us have the names and addresses of American manufacturers who can supply suitable machines for the above

Different equipment is used for spirit varnishing and laminating, the latter dividing into solvent types for cold application and hot melts (thermoplastic). Some of the manufacturers in the coating field manufacture equipment for all types of coatings. We have sent information to you.

### STORAGE OF ROLLERS AND INKS

What is considered the preferred method of ink and roller storage in a printing plant? There seems to be some difference of opinion in our shop.

Composition rollers in use should be stored in roller cabinets when off of the press. Large rollers should be placed in vertical position to avoid sagging. Rollers to be stored for some time before going on the press are best kept in a cool, dry room in a basement or cellar, protected from heat, light, and rodents. Some press manufacturers have a basement vault for storage of rollers. Stored rollers, when soon to be used, may be transferred to pressroom cabinet to season to room temperature a few days before going on the press.

Platen press rollers in use, as a rule, are not removed from the press at quitting time. A piece of reglet may be used to hold the roller saddle out so the roller cannot contact form or part of the inking system when the form is left in a platen press

overnight. Powerful saddle springs on the platen press will have longer life if the press is turned so that the rollers are well below the ink plate with the saddle springs in horizontal relaxed position.

When the composition rollers are overheated in summer (above 100° F.) and show signs of being about to melt, they may be restored to usefulness by removal to a cool location such as a basement for a few hours

Printing inks also should be stored in a cool place but brought to room temperature before going on the press. Prolonged exposure to high temperature causes some inks to spoil in the can, especially those with a tendency to liver. Livering is ascribed to certain combinations of pigment and varnish which are accelerated by heat. Recently an alumina hydrate that withstands livering under normal storage conditions has been announced.

### CHALK OVERLAY SHRINKAGE

In order to cope with shrinkage of chalk overlays, dry the overlay board on a radiator just before pulling print to be etched. Dry the overlay again after etching between blotters under flat weight like pane of glass. Dry again as at first with moderate heat just before hanging the overlay.

# Answers

### to It's a Quiz

Here are the answers to the quiz on page 57. What is your score?

- 1. a or incompetent workman.
- f or type wider at bottom than at top.
- 3. b or when but one person work at the press.
- e or when part of an impression appears double.
- c or a broad, thin board with a long handle.
- d or a wedge-shaped instrument for locking up forms.
- Long press runs.
- True.
- 9. True.
- False. Color remains more uniform by dry offset, because no water and ink balance is necessary. False; 1949 was 31 per cent
- safer than 1948.
- Correction of varying positions of buried makeready-"pointed" for ease in placing correctly in the packing so it registers.

### COLLATING AND TIPPING

We are requesting a list of makers of collating and tipping machines suitable for use with sheet-fed presses.

There is one collating and tipping machine for this work and also collating machines and tipping machines. By writing to the several manufacturers, on the list we sent you for information in detail, you can learn which setup is best adapted to your requirements. Tell them all about your particular needs.

### LAYOUT FOR MAMMOTH NUMBERS

We have a request for printing parking lot tickets with big numbers on them. We saw a layout for printing mammoth figures in a back number but failed to keep it, so are asking if you can help. The tickets we print are to have the big number. On the stub that is kept by the lot, the number is smaller. The ticket is printed in two colors. The second color has a numbering machine in the form.

The layout for mammoth figures, author unknown, has appeared at intervals in THE INLAND PRINTER, more recently in the issues of January and May, 1949, in Pressroom.

#### INK TO PRINT ON PLASTIC

You have been recommended to us as a source of supply of a surfacedrying ink which would dry and also adhere satisfactorily on plastic material like the enclosed sample. We would be interested in a black ink and also a light red or any other color which would show up on black material. We intend to use this ink on a platen press.

Your best procedure is to submit samples of the plastic in different colors with proof of form and name of press to the inkmaker. He can then advise you what means must be employed to get a print on this particular plastic. Special inks are required for plastics but there is no one ink suitable for all plastics. Nor can all plastics be printed economically by letterpress.

### COLLOTYPE

Collotype or photogelatin printing is a practicable method of reproducing single- or full-color subjects from easily prepared black and white photographic and line copy which enables production at reasonable cost on small-lot orders.

As it is a screenless process, only three printings are required to give full-color range. The screenless factor also makes possible enlargements from the original art work that are not coarsened in any way and retain the true photographic quality of the smaller original art work. Some nice looking printing jobs have been turned out by this process.

### SOURCES OF STOCK CUTS

We have had a source of stock cuts (zinc engravings) for the past few years but recently the quality has been very poor. Can you furnish a list of companies that carry a supply of stock cuts such as well known industry and manufacturing trade-marks?

We are sending a list from which an assorted supply of stock cuts may be obtained.

### GLUE AND PADDING PRESS

We are interested in an article on snap-out forms published in your December issue. Could we have additional information about the special penetrating glue and the padding presses? We are supplying names and addresses for direct contact with the suppliers for reliable information.

### PENETRATING GLUE

In a December item about snap-out forms, you mention a special penetrating glue. Could you tell more about it and advise us the manufacturer's name and address?

Glue's value as a bonding medium depends (in the case of paper) on its penetration of the pores of the paper. A glue with good penetration is required for snap-out forms, so the special penetrating glue is made for this purpose. The addresses have been sent to you.

### DECALS IN JUNIOR HIGH

We are desirous of experimenting with decalcomania printing in our school shop laboratory. Can you tell us where we can secure information and the necessary equipment to carry out such a project.

From your paper and ink suppliers you may obtain the special papers and the inks used to print letterpress decals.

A letterpress decal differs little from other good-grade work except in the special papers needed. Your suppliers possibly can arrange for you to visit a printing plant where this work is done. Your students would find that helpful.

# What some pressmen do

Some pressmen bore holes in the bed of press to eliminate wrinkles; plane down form of plates with the mallet handle; dig a hole in a screen plate with knife blade to bring the small weak spot that got mashed up by some foreign matter, running halfinch gripper hold on a heavy card board job that has to register on a two-color job printed on single-color presses.

Hammer down highlights of halftone impression on the packing for relief. You get wondrous results if you like it that way.

They can makeready with ink-not a patch of any kind required.

The opportunity-of-a-lifetime pressman lets helper put a job on press and make it ready. This was all this boy wanted. He goes out into the world and hires out as a pressman. I believe that he is back as a press assistant once more.

One guy has a habit of picking paper off rollers while press is running. Result—they had to send him to hospital for repairs.

Moving type matter in form when a slight touch of the guides will do the trick.

Make a halftone ready that will look as good and print as well as any mechanical overlay.

Ink form up and then plane it down. It helps fill up the screens on half-tones and small type.

Turn the air hose into that ink barrel and see what happens. Do not stand in front of the outlet. You may get a beautiful shower bath and the laundress will have a very special job of cleaning your shirt, and you could go for a good clean up job, too.

Put a good ream of stock into that cutting machine when the knife is very dull and watch the gears fall apart.

### By Joseph Kovec

Lay that form on the press then get another thought of something and walk away and then come back and push the button. See what happens. You will need a shovel and a basket for this one.

A large form that has no room for cross bars either way should not be lifted from stone or press if you see this the way we do.

After you have tried about all the tricks in the trade of removing wrinkles, try turning the stock around. It did happen once upon a time due to some weakness on one end of paper and we did this several times on this particular stock all through a long run; there was no way of determining which way to put the stuff in the press as the paper was switched any old way in the load. We just turned load around and presto! No more wrinkles until the next ream or so. On a two-color press with black first, no overprint. We find a spot of black overprinting on red. This would require a Houdini to locate this problem. So with that spot light we get busy to locate the reason for this one. Yep, we found after we wasted a lot of time-just a piece of paper sticking up out of the plugged quoins.

We do not recommend these, yet it happens, such as bragging about what a good pressman you are and then try to run a job without the ductor roller on the fountain or maybe you could get the sheets to stay in the grippers if you set them down on the packing. If you want distribution, don't forget to put the plate rollers down. It's much better that way. One way to cut rings on that fountain roller is screw those fountain keys up as tight as they will go and then turn the fountain roller. It can be done.

You can sandpaper cuts on face instead of the bottom. Pressmen say it helps a lot of presswork time. One pressman was trying to match a color for the job on hand. He spent about four hours at this. Then got sore and put the whole batch of ingredients together and presto! See what I see. A perfect match! Then you can take a cut out of form, fix it up, and put it back upside down and run the rest of the job off. Scour dry ink off form with sandpaper. Run the grippers into the form. Line up sheet for setting fountain accurately or you can keep on setting fountain until job is finished. We can put wrinkles on the job by putting the makeready in the wrong place, such as overpacked cylinder causing a long drag on the form.

A very good way to get a vacation for a day or two is try and exterminate rats with electricity. Just connect some wires from the rat cage to the main switch and then throw the switch on. See what goes on. They tried this once and all hands took a few days off until the electricians cleared up the mess and did a lot of rewiring and then put a big sign up, "Hands off this box. Keep away. Dangerous." The fly wheel came off while press was running full speed. Just before it took traction. It kept on bouncing up and down. Then zip across that room she goes, speed about sixty miles an hour. No one got hurt this time—the road was clear.

Do not put a lot of reducing compound or reducing oils or varnishes in the ink and expect good roller traction. They just won't keep from slipping over that form or whatever you are trying to print. If you like a halo on that type form, drop your rollers down so that they will bounce a bit in the sockets. Also those hard rollers will give the same effect.

# What's in Equipment and Supplies |

CHALLENGE Models 265 and 305 power paper cutters have been improved in design and operation, states the Challenge Machinery Company. The base has been partially enclosed and the operation modified by putting all controls above the table.

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On the full hydraulic power model, the lever at the right of the table moves the clamp up and down, and the lever



One model in Challenge's line of paper cutters

at the left controls the knife but must be used in connection with the pull-up button at the right. There is a safety measure in that the operator must use both hands and has control of both the clamp and the knife throughout the entire cutting cycle. The hand-clamp model is run up and down by a sixspoke hand wheel.

The two models are each built in two sizes: 26½-inch (Model 265) and 30½-inch (Model 305). Hydraulic power units are available for any Challenge Lever Cutter, Serial Number C-10,000 and over, permitting the conversion to either hydraulic knife power or full hydraulic (knife and clamp) power.

Antiseptic Westone is a dust-controlling method of floor care, made by West Disinfecting Company. Westone is said not only to remove dust from floors, but also to leave an antiseptic film which inhibits the growth and multiplication of the bacteria present. One gallon covers 4,000 square feet.

SPHEREKOTE, a new glass-beaded newspaper top blanket for use on newspaper impression cylinders is being made by Minnesota Mining and Manufacturing Company. The blanket has been coated with millions of microscopic glass beads-60,000 to 120,000 per square inch-and measures either .083 or .093 inches in thickness. Blanket's seven layers provide a glassbeaded surface designed to clean up first impression offset. The rubber and cloth cushion arrangement is formulated for added strength. When used with a cork underpacking, the manufacturer claims, the new blanket offers a durable and hard yet resilient press packing. The blanket can be used on both new and old high speed presses and is available in standard or special order sizes.

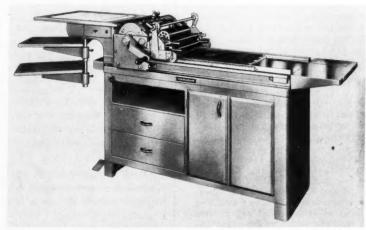
A NEW type metallic printing ink, based on Vinylite resins, is produced by the Sinclair and Valentine Printing Ink Company. It is said to dry to a hard, permanent surface and not to rub off despite constant handling. The Vinylite resins provide affinity to paper as well as a high gloss and resistance to fading and aging, the manufacturer states. The ink is claimed to print with unusual density, smoothness, and uniformity. A silver ink effect has been used on the outer covers of a national magazine. The silver ink, based on Vinylite resins, did not rub off and blacken the holder's hands. The covers were also treated with an offset spray.

PHOTOGUIDE, a new tool combining T-square, triangle, and ruler, is offered by the John Warner Company. The tool squares art and photos, is said to produce accurate four-side cropping, and to eliminate guesswork in reproduction work. PHOTOGUIDE is hand-printed on Eastman matte acetate. The finished size is 8½ by 11 inches. The transparent device is available calibrated in inches or in picas (the latter measuring up to 48 by 60).

A SMALL SIZE proofing press has been added to the equipment of Vandercook & Sons. It has a bed size of fifteen by thirty-five inches, takes a maximum plate or form fourteen by eighteen inches, handles sheets up to fourteen and three-quarters by twenty inches, and requires floor space of two-feet-six-inches by eight-feet-four-inches. It is designated as Model 215.

Manufacturer states that the press has been designed as a precision machine to meet the need for equipment to proof small plates or forms, both black-and-white and color. It is expected to find a place in plants where larger proofing presses are not required, or where small jobs may be tying up larger equipment.

Specifications for the 215 include power ink distribution, combined with an inking unit that may be changed quickly for proofing color; micrometer sheet guides; combination foot operated and automatic cylinder grippers. It is illustrated below.



New small proof press made by Vandercook & Sons has a bed size of 15 by 35 inches

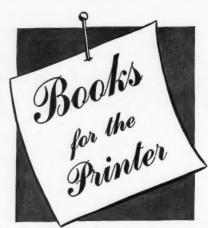
THEORY AND PRACTICE OF COM-POSITION, a 254-page textbook, is a composite of forty classroom lectures to apprentices in the Government Printing Office. Each of the twentyseven chapters not only contains a lecture but also a list of supplementary readings, questions for study and discussion, and a work project. The lectures deal with the historical background of the compositor's trade and describe the different operations of the compositor. While the information is slanted toward GPO needs, the book should be available to journeymen compositors, allied trade craftsmen, advertisers, and printing buyers. The book is priced at \$1.50 and may be obtained through THE INLAND PRINTER Book Department.

How to Plan and Buy Printing, by R. Randolph Karch, aims to show the student what processes are involved in getting a job to the printer and how to apply the processes in preparing the printing job. Mr. Karch, co-ordinator of trade and industrial education in the Pennsylvania department of public instruction at the University of Pittsburgh, states in simple terms the technical aspects of printing and offset lithography methods.

From initial preparation and editing of copy for the printer to the final selection of paper stock, the fourteen chapters, supplementary list of graphic arts terms, and index, the author analyzes steps necessary in order to get a job to the printer. The 8- by 11-inch book has approximately 192 pages, is cloth bound, illustrated with numerous halftones and line cuts, and has samples of many of the major type faces. Priced at \$5.65, this book may be obtained through THE INLAND PRINTER.

ADVERTISING WORK Told With Pictures, edited by Lester Olsen, has been produced through the sponsorship of the Milwaukee Advertising Club and the Graphic Arts Guild of Milwaukee. Introductory text, on-the-spot pictures, and captions present the following advertising media: newspapers, magazines, direct mail, radio, television, outdoor advertising, and motion pictures. Source-to-finished-product information is presented on paper, art, photography, photoengravings, exhibits and displays. The letterpress, lithography, and silk screen printing methods are described. Chapter 16, about letterpress printing, takes the reader through a modern printing plant. One of the Printers' Ink Business Bookshelf series, this 160-page book sells for \$7.50 and can be purchased from the book department.

MECHANISM OF THE LINOTYPE AND INTERTYPE, by Oscar R. Abel and Windsor A. Straw, is the 1950 edition of a pocket-sized standard textbook. The comprehensive book is a result of a series of articles that ran in The Inland Printer under the title "The Machinist and the Operator" and later



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published as a text titled "The Mechanism of the Linotype" by John S. Thompson. The mechanism of the Intertype and the changes and improvements recently made in composing machines have been added. Included in the twenty-eight chapters is an alphabetical list of illustrations (there are over 195 halftones and detailed drawings), a chapter on mechanical terms, and information on the operation and upkeep of the machinery described. The leather-bound book has 334 pages and is priced at \$5.25.

WRITING FOR THE BUSINESS PRESS, by Arthur Wimer, is a reference book about business papers, by 100 business papers editors, for students considering business papers as a career. The book shows the place business papers have

# HOW TO ORDER Books

Cash should accompany orders. We pay postage for books mailed within the United States, but 25c for postage should be added to foreign orders, please.

We regret that we cannot be responsible for any increases made by the publishers in the prices quoted here or in our book list. Those who order will be notified of any advance in price before delivery is made. in our economy and seciety. Twenty-six editors have written chapters covering specific fields. The writers point out that circulation and advertising work also offer possibilities as a career. Joseph Pulitzer's three-word formula for his editors and publishers might well be the theme of this book: "Accuracy, terseness, accuracy." Included is the code of ethics of business journalism. Writing for the Business Press has 351 pages, is priced at \$4, and may be purchased through this department, as may other books reviewed here.

TWENTY-NINTH ANNUAL OF ADVER-TISING AND EDITORIAL ART reproduces what is termed the best in advertising and editorial art. The volume contains 318 examples, many in full color, selected by the New York Art Directors Club from 7,391 pieces submitted for the twenty-ninth Annual National Exhibition. The annual was designed by Arnold Roston, Included are new special features: a new section on television, newspaper section printed on a stock similar to newsprint, and illustrations created by leading artists to introduce each section. In addition to a round table discussion on advertising and editorial art, the 388-page book's contents include: magazines, newspapers, trade periodicals, booklets, posters, calendars, annual reports, and periodicals. This 81/4 by 111/2-inch clothbound book sells for \$10 and may be purchased through this department.

THE WORD BANK, by Sophie Basescu, is divided into sections of related words headed by phrases that give the general idea, then subdivided into groups under key words that aid in finding exactly the right word to express a particular shade of meaning. The book was designed to be a help in increasing speech color and fluency, and to be of value to writers, executives, students, and speakers. It contains sections on medical terms, natural sciences, legal terms, and mental conditions, along with a thorough index and a glossary of prefixes, suffixes, and combining forms. Easy to use, the book is one of the Writers Library published by Rodale Press. Its price is \$3, and the book may be ordered through THE INLAND PRINTER book department.

PROBLEMS OF HIGH SCHOOL PUBLI-CATIONS, by Bruce W. Smith, is a 70-page book with metal spiral binding. An outline for the history and analytical portion of a high school journalism curriculum is presented and also how to integrate the high school publication into the course. Screening tests are included for newspaper staff selection. The book contains a headline chart used by The Colorado Sun at Boulder, Colorado. High school magazines and yearbooks are also discussed and a list of reference materials is furnished. The price of the book is \$1.50 and it may be obtained through the book service department of this magazine.

# Take Good Look Before You Leap into Debt

By Robert F. Welch

● SOONER or later in the course of his career, the average print shop owner will find himself short of funds. This is no reflection on his ability, since unexpected setbacks or need for expansion are apt to appear overnight. And it's sometimes just as expensive to keep too much working capital available as it is to have too little. It actually costs money to hold cash which is not being used.

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Some printers fail to take a realistic view of their credit requirements. In most instances this is a costly mistake. Lack of funds means that it may be impossible to take advantage of trade discounts, to buy paper and supplies in large lots so as to get preferential prices, or to follow an aggressive advertising and promotion campaign for bringing in new business. It's a smart move when you borrow money to bring in profits over interest payments.

Reliable estimates indicate that between one-third and one-half of this country's business failures result from insufficient capital. Frequently a firm will fold when it can't follow the lead of competitors who install labor-saving equipment and modern machinery. There's always the chance of an emergency which will throw the best laid plans awry and result in disaster unless such a contingency has been provided for.

All of these considerations make it mandatory for printers to establish and maintain good relations with their bankers. It's no sin to ask your banker for money—he's in business for that purpose. And ordinarily he's happy to lend it as long as you can demonstrate the ability to meet your obligations on schedule. Then the banker becomes a virtual partner in the business. But he's a partner who takes none of the profits, asking only interest on money he's invested.

There are several factors to take into consideration when choosing a banker. He'll be interested in your character, and you should find out about his. You don't want to trade with a man who will use any excuse to grab everything you've got.

Beyond that, he should be a progressive type of individual. Some bankers can't see beyond their flat top desks when it comes to backing a printer who wants to grow and expand. If he's overly cautious, try one of his competitors. It's also a good idea to pick somebody fairly

close, both for convenience and because he will be more familiar with trade potential of your community.

Once you've found the right man, don't hesitate to take him into your confidence. He will appreciate your frankness and be that much better prepared to help you along. Among other things, he'll ask for financial statements to satisfy himself that you're a good risk. This isn't done from morbid curiosity, and if you can't furnish such statements it probably means that you don't know just how you stand yourself.

Some business men even go so far as to float a loan before they actually need it. Then, when an emergency arises, the way has already been paved and they can get a still larger amount without difficulty. Provided, of course, that they carefully met commitments on the first loan.

It's well to remember that money is actually a commodity. You can get it cheaper some places than at others. And merely comparing interest rates is no way to judge what it's costing you to use somebody else's cash.

For instance, one of the most popular methods of repaying a loan is by installments. Such loans usually run for a year, and although the stated rate may be 6 per cent you really pay twice that amount. Usually half the loan is paid off when six months have expired, so the average amount of money you have in your possession is about half the face value of the note.

Suppose you borrow \$1200 for a year at 6 per cent, discounted in advance. Since the interest is \$72 you will therefore receive \$1128. The first month you have \$1128 at your disposal, the second month \$1028, and so on until the twelfth month when you have only \$28 to repay. By adding each of these monthly amounts and dividing by twelve, you find that you had an average of \$578 in your possession. A simpler method of arriving at this same figure is to add the balance for the first month to that for the last month and divide by two. (\$1128 plus \$28 equals \$1156, or an average of \$578.)

In short, you have paid out \$72 for the use of \$578. Instead of 6 per cent your interest rate is actually 12.46 per cent. You'll undoubtedly decide it's more economical to

take out a different type of loan, despite the fact that you may be accustomed to installment payments.

Another feature which sometimes confuses the real interest rate is the bank's requirement that you maintain a minimum deposit in your account as a condition of the loan. For example, you may borrow \$1200 for a year at 6 per cent, again discounted in advance. You now have \$1128 which is payable in a lump sum at the end of twelve months.

You are expected to maintain 20 per cent of the face value, or \$240, in your account. As a result, you have a net of only \$888 to operate with during the year, for which you are paying \$72 interest. Your rate is not six per cent, but 8.11 per cent.

There are several other factors which may crop up to affect the cost of your loan. Some banks charge to investigate your credit rating, levy service fees, and make charges on delinquent accounts. All of these things enter into the price you're paying. They should be considered just as carefully as the amount you put out for a new type face.

The important point to remember is that buying the use of money is much like purchasing any commodity. A little more complicated, perhaps, but you'll be safe as long as you take the trouble to compare prices and satisfy yourself that you're doing business with somebody who merits your confidence.

### Tells Tax Story

One Midwest printer and publisher, feeling that employers need to tell employees about the amount each employer contributes every week directly to taxes, has revamped his payroll checks.

The detachable statement of earning and deductions has the "earnings" and "total to date" columns encircled in red and labeled "Your company pays you this much" and "Your Government takes this much," respectively. Statement of earnings and benefits for the past year carefully explains where amounts withheld were paid and benefits the firm paid in addition to the employee's salary.

The printer and publisher feels that "employees should be made aware of the direct costs of some of the benefits which they receive from their employers."

# Competition Aids Research On Various Processes

• WHILE comparatively one of the older trades, printing might be termed a laggard in research alongside of some modern trades—the electrical, for example. In order to compete with the letterpress fourcolor process which had wrested the supremacy in color printing from lithography, which had previously long held it, the photolithographers realized the value of research from the start and vigorously engaged in it. So the Lithographic Technical Foundation has been and continues to be a prolific source of valuable information which has enabled offsetlith to utilize the four-color process to compete with letterpress.

Posed with the problem of competing with the speed of offset-lith, such pioneers as Claybourn, Hacker, and Vanderpool sought ways and means to correct errors in the printing elements so that letterpress makeready could be reduced to the minimum. The premakeready methods they developed have found gen-

eral acceptance.

Wet color printing brought new problems. The new method is based on various bodies and tack of the several colors. The first-down yellow is as stiff as the paper will stand and the following colors decrease in stiffness in the order of printing. It was soon found that in order to work this system, special attention to suitable copy preparation is necessary. The copy for the first color should be open enough to leave some blank paper for the second color to print on, and so on for the third and fourth color.

The outcome has been more attention to copy preparation and platemaking for both wet and dry color printing and single color work as well so that commercial printers as well as the national magazines, who are the biggest users of wet printing, have benefited from suit-

able copy preparation.

In zinc line etching the original copy provides the size of the blank spaces to be etched and the engraver cannot change them without washing out the color. Should he try, fine dots and lines might be etched away. Frequently a line etching is made so small that the large white spaces in the copy become too small in the reduction. Spreading ink may fill them up.

In halftone printing most trouble is caused by the ninety per cent tones, sometimes called heavy or deep shadows or near solids. Under the glass these tones of the plate are ninety per cent solid and interspersed by very small, shallow holes. If an excess of ink is carried, the impression will not clean the plate but leave a residue in the holes caused by spreading ink, which is cumulative so that the plate soon will print muddy. Because of this spread of ink in production printing at higher speed an engraver's proof, a single impression, cannot be taken on its face value as proof of a satisfactory printing plate.

Since these heaviest tones are the first to fill, they should be kept at the minimum in the copy. In order not to lose too much contrast by grayed-down shadows, darker spots and lines may be placed where indicated in them. If these fill up no great harm is done, contrast is retained, and the general effect is

satisfactory.

In viewing today's wet printing, which is increasing in volume with the great increase in the use of color, we find that the various national magazines furnish different specifications to the photoengravers, based on the limitations of the production equipment in the different printing plants. The problem of inktrapping is common to all. Time has shown that there is a limit to the total amount of ink that will lay well, one color on top of the other. The average for the various printing plants is not much more than two hundred per cent. It follows that copy should be light and airy and allow the several colors to print as much as possible on the blank paper. The photoengraver may have to cut out and thin down.

The client has an idea he wants to put across and this spurs the artist to obtain a certain effect, but both should be taught the limitations of reproduction so that they, the engraver, and the printer can co-operate to obtain a better wet color reproduction. How many clients and artists are aware that the deepest blank space in a photoengraving is equivalent in extent to the thickness of a sheet of paper and that depth is lost when duplicate electros and stereos used on rotary presses are

made from the original engraving? How many realize that the film of printing ink must be microfine, possibly one-five-hundredth as thick as the artist's paint?

Practical information such as this is just as important as knowledge that the four-color process can reproduce nearly all colors, not to limit the artist's freedom of expression but to impress the fact upon his mind that his art and even the photoengraver's reproduction is not wrapped around the cylinder of the printing press and printed but is rather a duplicate plate which can be no better than the original engraving. The engraver's proof can be taken on its face value as showing how closely it approximates the copy but means nothing as evidence that the plate will yield a printable electro or stereo. Only the depthometer and the engraver's halftone microscope can tell whether the dot structure and unabridged depth necessary for a printable duplicate plate are present in the original engraving.

Such practical information should be taught in art schools along with other aspects of reproduction. The artist uses whichever medium he deems best to prepare the drawing or painting: charcoal, oil, pastel, or water color, without considering the difference in the pigments and their method of application on the copy and in the press reproduction.

All of these mediums are put on the copy in comparatively high relief, in any number of colors and layers thereof. The high relief tends to add brilliancy because of the refracted light but when the ultimate plate goes on the press, the ink is stamped on the paper in a smooth film thinner than tissue paper, in four colors with which the printer is asked to get a faithful reproduction. In between, the human element enters on the part of the photographer, the negative maker, the negative printer, and the etcher, and finally the proofer. If the proof is not as good a reproduction of the art as hoped for, the plate is returned to the shop for alterations.

Under such conditions, to say nothing of the subsequent circumstances in the printing and duplicate platemaking steps, one would need to be a super optimist to hope to reproduce the effect produced by the artist on the original copy.

Or the artist may paint a picture in tempera on water-color drawing board. The colors appear pure and bright with the peculiar mat finish and again in high relief and quite possibly, repeated layers. After the engraver makes the color process reproduction plates, they are proofed in oil-varnish-vehicle inks on glossy enamel-coated paper. So the most painstaking care and skill in the reproduction steps can only approximate the appearance of the original.

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Research to determine the best methods of copy planning and preparation is in order. Premakeready has been well studied and the means provided for its operation. Platemaking at present is receiving a good going-over. A joint committee of the American Association of Advertising Agencies and the National Association of Magazine Publishers is seeking ways and means to improve high speed wet printed advertising by furnishing suitable copy for this process and improving the original and duplicate plates used. All printers will profit from the committee's findings.

The committee had this to say about methods of etching: "In the common direct method the plates are etched for a period of time, not sufficient to produce the desired unabridged depth, so necessary for wet printing. In the indirect method plates are etched face down in a still bath for 35 to 40 minutes which produces a clean over-all depth so desirable in wet printing plates." Some of the advantages of the indirect method are: "A. In the initial flat etch of 35 to 40 minutes, it is possible to obtain a depth of 2.5 thousandths to over 3.0 thousandths of an inch in the highlight area; B. Improved side walls of dots; C. Better color balance is achieved photographically instead of by excessive re-etching, resulting in more vitality and color uniformity in the millions of copies printed on high speed wet printing magazine presses."

Besides the old direct method and the indirect method, the latter in some respects similar to the method of the photolithographer, there are special methods of their own developed by leading engravers, all in the search for the best method of producing a printable plate for wet printing.

In the final analysis it is the maker of duplicate plates who must deliver the goods to the printer, since it is a duplicate plate and not the original that makes the run. The International Association of Electrotypers and Stereotypers recently published a booklet which every printer should peruse, "Basic Requirements for Electrotypers," covering in detail the standards of engraving, composition, and lock-up

which should be maintained to help the duplicate platemaker do his part in the production chain.

Inkmakers and papermakers also are at present wholeheartedly engaged in research, since it is accepted today that the best in the art of printing is possible only through the mutual co-operation and understanding of those working in all divisions of the printing industry. Crafts in the production chain are mutually dependent; realization of this common need has spurred all concerned to further research.

Today copy preparation is in the spotlight as never before. It has become generally realized that really good copy cannot be improved, and only approximated at best.



Left: Van Zandt, retired printer and master carver of Chicago, stands besides small church he made of cement. Acme photographs

Below: June Ferguson prepares the miniature eighteenth century printing press exhibit at Los Angeles Museum

# Printing Views Itself in the News

One century ago Felix Mendelssohn-Bartholdy composed a march specifically commemorating the four-hundredth anniversary of printing from movable type. Some years later, words were added to the music and the composition has become world-renowned as the Christmas carol Hark, the Herald Angels Sing!

Today finds the world again marching to martial strains—but printing remains "the art preservative of all art."

In the Los Angeles Museum, where a valuable collection of presses, blocks, seals, books, papyri, scrolls, and miniatures formed an exhibition commemorating Printing Week, a miniature press which was made of three kinds of wood attracted numerous visitors to the museum. The press is of the type once used by Benjamin Franklin.

The present status of printing and allied arts as an essential industry in the eyes of Washington, D. C., officials regulating the availability of controlled materials further attests to the need for the public to be informed as to the importance of the graphic arts in our democratic life.

### PRINTING, PUBLISHING DIVISION

Donald G. Shook has been named acting director of the Printing and Publishing Division which has been established within the National Production Authority. Colonel E. W. Palmer is consultant to the program. Organization of the division is being conducted by Richard Murphy, assistant to H. B. McCoy, director of the NPA Industry Operations Bureau.

Both Colonel Palmer and Mr. Shook were connected with the War Production Board Printing and Publishing Division during World War II. Colonel Palmer, president since 1925 of the Kingsport Press, Kingsport, Tennessee, is one of the best known figures in the graphic arts industry. Mr. Shook recently was president and publisher of a weekly newspaper and small commercial business which was located in Media, Pennsylvania.

John V. McCarthy, Department of Commerce official who has been temporarily in charge of the division, will continue with the division in an administrative capacity as assistant to Mr. Shook.

That NPA recognizes the importance of the printing and publishing industry in the defense program is attested by this industry's status as a division on a high industry level. The new division will have product sections, it is announced, covering newspapers, magazines, books, commercial printing, and printing machinery, with a section for printed products which do not fit under the above categories. Two other sections will handle industry statistics, research, program and planning; and conservation and salvage.

A major task of the division will be recruiting from industry men to head the product sections and industry consultants to the division. The appointment of advisory committees has been delayed by the complexities of the problem.

### HOLDS SALES CONFERENCE

More than seventy-five sales representatives and employees of the Sorg Paper Company attended the company's annual sales meeting held recently in Middletown, Ohio. R. A. Nash, vice-president in charge of sales, conducted the two-day meeting, which related manufacturing, raw material supplies, administrative, product development, research, sales promotion, and advertising plans and prospects to sales objectives for 1951.

Donald G. Driscoll, president, spoke on the part that the sales department had played in the growth of the company, and in the accomplishments of the past year, which was one of the firm's most successful. Other speakers were J. A. Aull, Jr., vice-president; C. J. Nichol, sales manager; L. C. Currier, vice-president in charge of operations; W. J. Cassidy, M. A. Dawson, J. A. Owen, D. M. Yost, and A. D. Sherman.



Devoted to timely items concerning men and events associated with printing. Copy must reach editor by 20th of month preceding issue date

### INCREASE CAPITAL STOCK

Stockholders in the Mergenthaler Linotype Company recently voted at the annual meeting to increase the authorized capital stock from 300,000 shares without par value to 600,000 shares without par value, and also to split each share of stock outstanding into two shares.

A union pension plan, effective July 1, was approved, covering some 2,000 Linotype employees represented by collective bargaining units. Also endorsed was a supplementary retirement and benefit plan covering approximately 900 salaried employees.

The following officers were reelected: Martin M. Reed, president;
George W. Allison, vice-president and
general works manager; Harry W.
Porte, vice-president in charge of
sales; Gordon B. Welch, vice-president
in charge of research; Eugene B.
Mirovitch, vice-president for Latin
America; John W. Reid, treasurer;
John E. Walsh, Jr., secretary; C. F.
Lucek, controller; Carl A. Hergrueter,
assistant secretary and treasurer; William H. Moore, assistant secretary and
assistant treasurer.

### CANNOT MAKE BRONZE INK

The National Production Authority, in amending NPA Order M-12, has forbidden the use of copper after March 1, 1951. While the manufacture of bronze ink is prohibited after March 1, the item "may be completed if . . . in the process of manufacture on or before March 1, 1951, and such completion is affected not later than April 30, 1951, and any such items so completed may be sold after April 30, 1951."

Requests for relief from the order should be addressed to the National Production Authority, Washington 25.

### AIGA OPENS PRINTING SHOW

Third annual Printing for Commerce exhibit of the American Institute of Graphic Arts was being shown in New York during the first three weeks in February before embarking on a nationwide tour. It consists of 186 items of commercial printing produced during 1950 in a variety of classifications, jury-screened from entries sent in from twenty-seven states, the District of Columbia, and Canada.

Members of the jury were instructed to make their selections on the basis of the best in printing, design, art work, typography and reproduction. Broken down into processes, the display contains 95 examples of letterpress printing, 51 of offset lithography, and 40 of gravure combined with other processes.

Members of the jury were: Charles T. Coiner, agency art director; Robert T. Aitchison, printer and lithographer; Lester Beall, artist and designer; Eugene Ettenberg, printer and typographer; Paul M. Hollister, designer and director of advertising and promotion; Leo Joachim, editor and publisher in graphic arts fields; Charles E. Springhorn, buyer of corporate printing.

After the New York showing, the first itinerary stops are scheduled for Washington, D. C., and Philadelphia.

### STERN'S DEMONSTRATION YEAR

Edward Stern and Company, of Philadelphia, Pennsylvania, recently held a Demonstration Year meeting and dinner at the Adelphia Hotel. Raymond Blattenberger, senior vice-president, delivered the final address of the sales meeting. The Demonstration Year campaign coincides with the company's eightieth year in business. The campaign aims to have organization departments show their ability and willingness to economize, achieve greater efficiency, improve methods, extend research, and otherwise cooperate to make the year outstanding.

### EXPOSITION BOARD MEETS

The board of directors of the National Graphic Arts Exposition, Incorporated met in Chicago on December 12. The affairs of the corporation covering the recent Sixth Educational Graphic Arts Exposition were reviewed and, in accordance with established practice, the board allocated \$28,500 to the educational fund of the International Association of Printing House Craftsmen. Refunds to exhibitors were authorized, totaling \$42,870.52. The refunds, based on individual contracts for space, are now being made.

The National Graphic Arts Exposition office closed as of December 31, and records were transferred to the office of the secretary, S. Frank Beatty, in Chicago. Mr. Beatty will handle all business of the corporation pending the next show.

### LITHOGRAPHIC EXHIBIT

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Exhibition of the winners in the first annual offset-lithographic awards competition is slated for New York, February 19, to continue through March 3. Sponsor of the competition is the Lithographers National Association Following the New York showing, the exhibit will be displayed in various cities throughout the country by local organizations.

"Work of startling beauty, fidelity, and variety" is promised by LNA president Randolph T. Ode, who predicts that the exhibit will be one of the most inspiring and impressive in the history of offset-lithography. Winning pieces, selected from entries sent in from all over the country, have been judged by classifications on the basis of good standards of design, functional and reproduction qualities. Awards and honorable mentions have been made for each group. Gold, silver, and bronze grand prices are being awarded for the three examples of offset-lithography judged best-of-all produced in 1950, regardless of classification.

Panel of judges includes four groups covering the fields of art, production, management, and technical development. For the art group are Ivan Dmitri, Bradshaw Crandall, Elwood Whitney, and James Nash. In the production group are John E. Donegan, Harry R. Meeker, and John J. Flanagan. Management group advertising executives are Parlin Lillard, William Farlie, and Edward W. Kyritz. Technical members are John Kronenberg and Wade Griswold.

### ZIMMER EXPANDS

Zimmer Printers Supply Company, New York City, has purchased the entire steel rule manufacturing department of E. C. Atkins and Company, Indianapolis, it has been announced. All the fabricating machinery, tools, stocks and dies for manufacture of creasing, cutting, and perforating steel rules formerly owned by Atkins have been transferred to the Zimmer plant in New York. Atkins, it is stated, is continuing manufacture of its other lines of graphic arts machinery and equipment.

As part of its expansion, Zimmer, established in 1880, has acquired two additional buildings adjacent to its plant property.

### HAMILTON DECEMBER CONTEST

W. C. Hamilton and Sons is conducting a series of monthly contests which stress appreciation of printing craftsmanship. The contests will extend through April, 1951. Each is open to Hamilton paper distributors' salesmen and entries are limited to direct-mail pieces on the company's papers. First place in the December contest went to Graphic Arts, Incorporated, of Philadelphia, for an oversize Christmas card showing a bearded workman carving a wooden mold.

### NEW ENGLAND CONFERENCE

The 1951 New England Conference for the Graphic Arts will be held April 16 and 17 in the Hotel Statler, Boston, Massachusetts. Chairman of the conference is Carlton M. Strong, manager of the Boston office for the Rumford Press. The 1951 meeting will be the seventh in the series conducted by the Graphic Arts Institute of New England for management and key personnel of the region's printing and allied industries. Arthur T. Howard, of the printing firm of A. T. Howard Company, has arranged a program of clinics on specific problems facing the graphic arts industry.



Iowa Daily Newspaper Mechanical Conference. Hotel Montrose, Cedar Rapids, Iowa. May 5,

6, 7
Pacific Mechanical Conference. Biltmore Hotel, Los Angeles, California. During May, 1951
National Association of Litho Clubs. Hotel Cleveland, Cleveland, Ohio. May 11, 12
Third District Conference, International Association of Printing House Craftsmen. Royal York Hotel, Toronto, Canada. May 18, 19
National Paper Box Manufacturers Association. Atlantic City, New Jersey. June 3, 4, 5, 6
ANPA Mechanical Conference. Edgewater Beach Hotel, Chicago, Illinois. June 11, 12, 13
Lithographers National Association. Spring Lake, New Jersey. June 25, 26, 27, 28, 29
Conference on Printing Education, International Graphic Arts Education Association. Statler Hotel, Cleveland, Ohio. July 17, 18, 19, 20
International Association of Printing House Craftsmen. Statler Hotel, Boston, Massachu-

setts. August 19, 20, 21, 22 International Typographic Composition Association. Hotel Windsor, Montreal, Canada. September 13, 14, 15

Illinois Newspaper Mechanical Conference. Hotel Louis Joliet, Joliet, Illinois. September 23, 24

### EXCESS PROFITS TAX LAW

The new excess profits tax law, retroactive to June 30, 1950, is of vital importance to every corporation. The tax does not touch upon individuals, partnerships, or estates. It is a very complex law that warrants the advice of accountant and tax counsel. A proviso of the tax as of this writing states that the total of all income and excess profits taxes cannot take more than 62 per cent of taxable income. There is a minimum yearly credit of \$25,000. If a corporation began business before 1946, it has the choice of several optional methods of figuring average earnings credit for the base period. The new law carries no special relief provisions like those in the World War II excess profits tax law. A delay in obtaining wise counsel could be costly to corporations.

### MATERIALS HANDLING CONFERENCE

Printing plant operations will be accorded a considerable share of attention at the Materials Handling Conference and Exposition to be held at the International Amphitheatre in Chicago, April 30-May 4, it is announced. The conference is being sponsored by the American Material Handling Society; the exposition by the Material Handling Institute, under the direction of Clapp & Poliak, Incorporated.

It is stated that printing executives will find scores of machines specially suited to the industry among the thousands which will cover ten acres of exhibit area, both indoors and outdoors.

Among topics announced for discussion at the conference are: Incoming raw materials and components; plant warehousing and shipping; unit loading and packaging methods with skids, and with or without pallets; fundamentals of materials handling; relationship of handling to other departments; analysis of what consitutes materials handling costs.

Admission to both conference and exposition will be free.

### CULLOM AND GHERTNER EXPANDS

The main plant of Cullom and Ghertner Company was recently moved to new, streamlined, one-floor quarters in Nashville, Tennessee. The plant occupies 60,000 square feet with its own railroad siding. The company's Atlanta, Georgia, branch has also moved to new one-floor quarters.

A. W. Lyell has been elected assistant vice-president in charge of production at the Nashville plant; W. M. Robinson has been elected to the same office at the Atlanta plant, and R. T. Vaughn, secretary.

### CHANGES AT CLINE ELECTRIC

A. J. Cline, who founded Cline Electric Manufacturing Company in 1912, has resigned his active posts as chairman of the board and treasurer, to continue with the firm as a consultant, it has been announced. He has been succeeded by Colonel Warren P. Scott.

Former president A. H. Parks has retired from his duties because of illness, and has been succeeded by Harvey E. Brundage. Herbert R. Behr is vice-president, and Jess Halsted, secretary.

The company, whose headquarters are in Chicago, recently moved to a new factory and office building with more than 100,000 square feet of space.

### NEW MONOMELT PLANT

Monomelt Company, of Minneapolis, Minnesota, recently opened a new Bakelite matrix material processing plant. It is said to be the only plant actually processing Bakelite matrix board in the Middle West. Initial capacity will permit the processing of 300,000 pounds of finished Bakelite matrix material.



• Harry G. Baumann, known for the inventions and improvements he contributed to the marking and numbering field, has retired from his position as vice-president, William A. Force and Company, New York City, after

forty-eight years of service. . . . Albert Elder is in charge of fourth area Fairchild photoengraver service, with headquarters in Dayton, Ohio, where Fairchild Camera and Instrument Corporation has opened an engineering liaison office to work with the Air Materiel Command, U.S. Air Forces, at Wright Field. . . . Leslie C. Kendall has been appointed by Ben Shulman Associates to direct sales of Heidelberg presses throughout New York State, including the Greater New York area. ... John McMaster has been appointed manager of the graphic arts sensitized goods sales division of Eastman Kodak Company, He succeeds Victor W. Hurst, who is retiring. . . . Sidney Kasanoff is

now production manager at the Bentill Press, Boston, Massachusetts, He was formerly assistant purchasing agent at Court Square Press in Boston. . . . James A. Collum has been appointed executive vice-president of Comfort Printing and Stationery Company, of St. Louis, Missouri. Duncan I. Meier, Jr., has been named to take over as sales manager. . . . Julius P. Everson has succeeded Arthur H. Lohman as purchasing agent of the Hamilton Manufacturing Company. Mr. Lohman will continue to serve on the board of directors and as consultant on purchasing matters. . . . William F. Lanigan is manager of a Chicago divisional sales office of the St. Regis Paper Company.... John T. Moran, vice-president and general manager, was elected president of Gunthorp-Warren Printing Company recently. Mr. Moran started with the firm thirty-four years ago as an office boy. . . . D. E. Loushay is the new president of Roberts Numbering Machine Company. Mr. Loushay formerly was general manager of the Linn Coach and Truck division of Great American Industries. . . . Daniel K. Beswick has been appointed as vicepresident in charge of sales of Carton Label and Lithograph Company, San Francisco, California. He was formerly associated with Zellerbach Paper Company for fifteen years. . . . Thomas Martin has been appointed manager of the southern district office at New Orleans, Louisiana, for Intertype Corporation. Mr. Martin succeeds C. C. Chadwick, who retired recently. . . . An advertising man and a book publisher, both of New York City, have teamed up to go into the printing business in Vermont. Henry W. Butterfield, formerly in the ad department of the Consolidated Edison Company of New York, and John Hodgson, of the Bookof-the-Month Club, have bought Cowles Press, St. Johnsbury, Vermont, from Russell Wheelock, and Mr. Butterfield has taken over active operation of the plant. . . . Charles Powers of Powers Photoengraving, is new president of the Photoengravers Board of Trade of N. Y. . . . Albert Hailparn, of Einson-Freeman Company, Long Island City, New York, is chairman of the graphic arts division of the Legal Aid Society's 1951 fund raising campaign. . . . John L. Davis, retired former assistant director of sales, Mergenthaler Linotype Company, died in January. He had been retained as a staff engineer consultant to the Linotype factory. . . . William S. Patton has been appointed an eastern district sales representative, Hammermill Paper Company, working out of the New York office as assistant to George Smart, eastern sales head. . George J. Parker has joined ATF, Incorporated, as vice-president in charge of defense production. . . . Edward M. Kinlein, partner in the Optic Bindery, Baltimore, for thirty-five years, died in January. . . . Walter Howe, R. R. Donnelley and Sons Company, has been re-elected president of the Art Directors Club of Chicago for 1951.



Now, complete protection from dry air problems is available without costly compressors, troublesome drains and duct work. WALTON Humidifiers require only a simple electrical and water connection, use no floor space and can be installed quickly, without interrupting normal production. Find out now, how WALTON Humidifiers provide complete protection, economically, from dry air—the primary source of curled paper stocks, poor register and production-slowing static.

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### NEW RUTHERFORD CATALOG

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A new sixteen-page-and-cover, illustrated catalog of its equipment items has been issued by Rutherford Machinery Company, Division of Sun Chemical Corporation. In all, forty-one pieces of machinery are cataloged, each shown by a photograph, and briefly described in accompanying text.

The Rutherford line includes color cameras, vacuum printing frames, step-and-repeat machines, metal decorating presses, plate whirlers, and equipment used for such specialty work as printing on steel tapes, collapsible tubes, wooden rules, wire, and hose.

### GIEGENGACK TO ELECTROGRAPHIC

Augustus E. Giegengack has been chosen vice-president and Eastern sales manager of Electrographic Corporation. Mr. Giegengack will have his headquarters at the firm's New Haven, Connecticut, electrotype division.

From 1934 to 1948 he served as Public Printer of the United States and in 1947 received a Certificate of Merit from the President. He organized and managed the Sixth Educational Graphic Arts Exposition in Chicago.

### EASTERN SCHOOL EXPANDS

The Eastern School of Printing Presswork, New York City, is expanding its presswork training courses dealing with printing inks, ink problems, color mixing, and color matching. Hubert Scheichet of Superior Ink Company, New York, will lecture on and demonstrate ink and color problems. The school recently added a Miehle Vertical press and a Chandler-Price Craftsman Automatic unit. Rosario A. Arigo and Jack Kertes have been added to the staff of instructors.

### BRITISH INDUSTRIES FAIR

The British Industries Fair, now in its thirty-sixth year, will be held in London and Birmingham from April 30 to May 11. More than 3,000 manufacturers representing 100 industries will exhibit in one million square feet of actual stand space, it is reported. Exhibits will be arranged by industries and trades.

### ATF APPOINTS HEINSOHN

A. E. Heinsohn, printing machinery and supply house, Denver, Colorado, has been appointed American Type Founders' distributor in the Far West, covering all or part of thirteen states in the Rocky Mountain area from Canada to Mexico, it has been announced. The Heinsohn company has operated in the territory since 1911, and now plans to establish regional branches, it is understood.

The new venture was described by R. G. Marquardt, ATF vice-president in charge of domestic sales, as "one of mutual benefit which will work to the benefit of printers, engravers, typographers, and others" in the area.

### WICKERSHAM ELECTS MOSCOW

Herbert Moscow was recently elected president of the Wickersham Press, to succeed the late Daniel Moscow. Leonard Jacoby, Jr., was elected executive vice-president, Herman F. Brauer, vice-president, and Isabel D. Moscow, secretary and treasurer. All of the above-mentioned officers were elected to board of directors, as was Charles H. Silver, vice-president of the American Woolen Company.

#### NEW BERNHARD STYLE BOOK

A new twelve-page Bernhard Style Book published by American Type Founders tells how to use Bernhard Modern, Bernhard Modern Bold, and Bernhard Tango. Lucian Bernhard, type designer, is presented in a self-interview. The booklet, printed in black and four colors, is the second of a series. The first, on Bulmer, was designed by George Trendholm and published last year. The third, on the Lydians, has been designed by Warren Chappell and is in preparation.

#### KODAK OFFERS LEAFLET

Eastman Kodak Company offers a leaflet which describes the "controlled flash" and "high-lighting" methods of producing halftones with Kodak Magenta contact screens. The two techniques will, the firm claims, provide versatility in production of halftones.



# Keepsake Book

\*"The Witch of Ramoth and Other Tales," supernatural tales of wonder and magic by Mark Van Doren, furnish the text of the eighth annual keepsake volume of The Maple Press Company of York, Pennsylvania. The out-of-this-world charm of the stories has been adequately captured by Fritz Eichenberg for the book's many illustrations.

Planned by and produced under the supervision of Howard N. King at Maple Press, the book is  $7\frac{1}{2}$  by 11 inches, its cream colored binding enhanced by a geometric design in brown, with a brown spine carrying the title in gold, the pages—top, bottom, side—edged in gold.

The book is set in 14-point Monotype Goudy Village, with a 4-line initial in second color starting each of the nine stories, which, incidentally, have never before been published. The page-size illustrations are in black and varying second colors. Margins are generous.

Truly a de luxe edition, with only 1700 copies printed, readable as well as beautiful, "The Witch of Ramoth and Other Tales" is destined to be cherished. It was sent to the fortunate recipients in its own box, which is bound in the same pattern of brown design against cream that covers the book.



(Concluded from page 46)

Group D: The seeing tasks of this group require the discrimination of fine detail by utilizing (a) the reflected image of a luminous area or (b) the transmitted light from a luminous area.

The essential requirements are (1) that the luminous area shall be large enough to cover the surface which is being inspected, and (2) that the brightness be within the limits necessary to obtain comfortable contrast conditions. This involves the use of sources of large area and relatively low brightness is which the source brightness is the principal factor rather than the footcandles produced at a given point.

Low level illumination, while ideal for romance, is hardly suitable for a guillotine machine operator.

Vision is the most highly prized of man's five special senses. It is important that every care be taken to preserve it-and the machine that the worker operates. Blindfold even the most skilled mechanic, and he is practically helpless. Workers in poor light are, in effect, partially blindfolded. The efficiency of the worker determines the efficiency of the machine; and adequate illumination is an essential factor both in high operating efficiency and in the prevention of accidents. It has been estimated that 15 to 25 per cent of all industrial accidents have been caused by poor lighting.

To sum up, the light should be adequate for each employee, so that he can see clearly without fatigue or eyestrain. Adequate daylight illumination, properly applied, is the ideal light. The illumination level, measured in footcandles, should be at least four times the minimum specified for artificial lighting. Poor lighting usually results if the ratio between the floor and window area, for example, is greater than six to one. In most modern daylight factories the ratio is between five to one and three to one.

It's time to put your plant, workmen, and printed product in a better light!

(We wish to thank Frank Prosek, of The Inland Press; Fred Glocke and R. R. Lusk, of Commonwealth Edison Company; Edward F. Grat, of Hyre Electric Company; and Kent Francis, of National Safety Council, for their splendid help.)



These statements have been compiled from thousands of remarks made by men who run the finest presses in the

- time and trouble.

  \*\*QUICK, RELIABLE SERVICE: Cline-Westinghouse service is nation wide from more than 40 of the
- service is nation wide from more than 40 of the biggest printing centers.
- \*AS MODERN AS TOMORROW: Cline always seems to be ahead. About the time we think we need some equipment to do a job better, Cline comes along with it.

CLINE ELECTRIC MFG. CO.

NEW ADDRESS... MAIN OFFICE:
3405 WEST 47th STREET - CHICAGO 32

EASTERN OFFICE: 220 East 42nd St., New 17, N.Y.
WESTERN OFFICE: 410 Bush St., San Francisco 8, Cal.





# **Protective coatings**

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• GREAT ADVANCES in decorative and protective coatings of the printed piece have been made during the past two decades. In the preceding days the choice was limited to either press overprint varnish or spirit varnish applied on the coating machine. Improvements in pigments and varnishes made possible high gloss inks which eliminate the varnishing operation. The introduction of the anti-offset spray gun greatly facilitated the use of high gloss inks. In fact, the use of high gloss inks on a large scale as is now common would not be practical without the anti-offset spray which substitutes for slipsheets.

The latest advance is plasticoating which consists of laminating a film of cellulose acetate, vinylite, or other plastic film on top of the printed piece to afford the maximum in decoration and protection of the stock and print. Plasticoating is the most costly of these processes but it is worth more in insurance and looks.

As between press varnishing and spirit varnishing the choice depends on a compromise. If the buyer is satisfied that overprint varnish is good enough, its use is more economical than spirit varnish, because the speed and size of the printing press may be utilized in applying overprint varnish. The fact that many of the greatest label jobs, in the millions, such as cigarette package wraps, are press-varnished indicates that overprint varnishing still has certain advantages.

While overprint varnishes have been improved in various ways, including elimination of pronounced yellowish cast they had in the past, still spirit varnish, due to its inherent advantage and the manner of its application, in thicker film than practicable on the press, is better looking.

In overprint varnishing, the ink must be suited to the stock or the varnishing will suffer. The makeready on the ink run and the varnish run must be right. Spotty printing will show in the varnish. Overprint varnish, if run too thin, loses its gloss. If run too heavy it will cause sticking and offset. The gloss is lost where one sheet sticks to another. In spite of the difficulties, the best of today's overprint varnishes very closely approximate spirit varnishing, which was quite impossible yesterday. As far as the majority of commercial printers are concerned, overprint varnish has the advantage of being completed in the plant instead of being farmed out. It has

the further advantage of being applicable without harm over some inks not fast to spirit. The anti-offset spray facilitated the use of overprint varnish as well as high gloss inks.

High gloss inks, when used on suitable papers made for them, yield a complete print in a single operation, splitting in half the hazards of two separate runs, one in ink, the other in varnish. This improved chance of a good finish adds to the popularity of high gloss inks. The high gloss ink being a separate print, it is not subject to one limitation of an overprint varnish applied over different inks in one impression: one underlying ink may show more gloss than another under the press varnish.

Plasticoating, while more costly than varnishing, is more durable under deteriorating influences, looks better and is, of course, preferred when the decorated piece is to be preserved and handled frequently. This applies to the inside pages as well as covers. Applied over covers printed artistically in colors, plasticoating is in a class by itself in conferring an air of distinctive high quality, influencing the reader to open the volume to see whether the contents are as good-looking as the cover. Probably the most gorgeous display of color printing is fourcolor process at its best on inside pages of Number 1 enameled book, with cover in the same process, coated with plastic film.



1937

...we began using the slogan "It pays to plan with your printer" in all of our national advertising. We have used it ever since.

1950

... as shown in the advertisement at the right, we continued to tell your prospective customers that "It pays to plan with your printer."

1951

... Nekoosa-Edwards advertising in The Saturday Evening Post, Time, and Business Week will keep on saying "It pays to plan with your printer." We like to work with printers ... just as printers like to work with Nekoosa Papers.

for efficiency, economy and craftsmanship...



your letterheads, invoices, statements and other business forms:

It pays to plan with your printer!

This is sound advice. It pays off in lower printing costs, improved efficiency, better results. So for expert guidance in solving your printing problems, rely on your printer.

And for papers that meet your most rigid printing requirements, rely on Nekoosa Pre-tested Business Papers!

WE ROOME

PRE-TESTED BUSINESS PAPERS

NEKOOSA BOND NEKOOSA LEDGER NEKOOSA MIMEO BOND NEKOOSA DUPLICATOR NEKOOSA MANIFOLD NEKOOS-O-PAKE DUALITE SECOND SHEETS JOHN EDWARDS BOND

NEKOOSA-EDWARDS PAPER COMPANY . PORT EDWARDS, WISCONSIN

ny Survey Shows You... RED STREAK

# PAPER KNIVES

# **Cut Cleaner and More Accurately!**

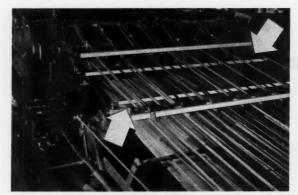
Customers keep coming back for "Red Streak" Knives... for good, sound business reasons: Every cut is a clean, straight shear-cut, because correct taper and face clearance eliminates drag against stock... and because accuracy of edge and thickness of body are uniform, end to end. Cutting edge stays sharp longer because of the special qualities of Simonds S-301 Steel. And fast, smooth cutting is assured by Simonds "Mirror Finish," imparted

by huge, special 15-ton grinders.

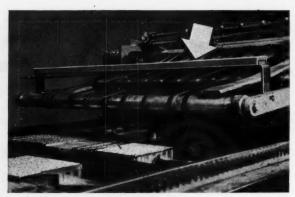
If you want finer register work and cleaner cut edges...plus the greatest number of cuts for your knife-dollar... then get Simonds "Red Streak" Paper Knives from your dealer now.



Branch Offices in Boston, Chicago, San Francisco and Portland, Ore. Canadian Factory in Montreal, Que.



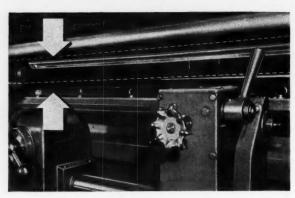
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Vandercooks...



Babcocks...



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# **lonotrons** stop static troubles

These are some of the kinds of presses on which Ionotrons have already eliminated static problems. In numerous printing plants where Ionotrons have been installed, they have reduced press stops and spoilage, boosted production, or improved reproduction.

lonotrons — a unique application of atomic energy — contain a self-activating source of continuous alpha radiation. The alpha rays ionize the air in the static trouble zone. The ionized air conducts the static harmlessly to the ground. The static-removing effect of Ionotrons is continuous and permanent. They can be

produced in sizes to fit a wide variety of graphic arts equipment.

The first cost of Ionotrons is the *only cost*. There are no moving parts, no power requirement, and no operating cost! The only maintenance required is an occasional wipe with a soft cloth.

### Send for free bulletin

If static is still a cause of trouble in your shop, you'll find profitable reading in the bulletin entitled "Ionotron Static Eliminator Applied to Printing Presses". The coupon below will bring your copy by return mail.



Dept. 917, U.S. Radium Corp.

535 Pearl Street, New York 7, N.Y.

Please send bulletin 8.3 to:

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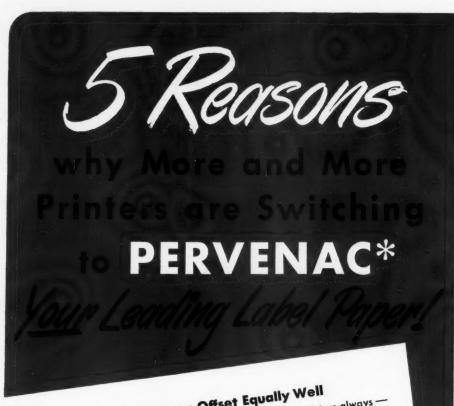
Address

City

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State

Title\_



- Takes Letterpress or Offset Equally Well (No special processes or equipment needed — you print as always the heat seal coatings do not alter the regular printing surface).
- **Curling is Practically Eliminated** (You won't find this headache, so prevalent with conventional label
  - Excellent Shipment and Storage Stability (Safe in your plant, safe in your customer's plant, under wide range of temperature and humidity conditions).
  - 4 Puts You in Solid with Your Customers (Sticks to surfaces that repel conventional adhesives — plastics, film, foils, as well as paper, glass and metal).
  - 5 Gives You a Two-Fisted Sales Story (Backed by factual, compelling sales literature).

Above are the major advantages of Pervenac for you, the printer. And in Pervenac you have a fistful of hard-hitting advantages to tell your customers in better looking labels that won't smear, wrinkle or tear at the edges ... in greater labeling speed and other time and labor savings. Your nearest Nashua heat seal merchant here listed has Pervenac. He will be glad to call with you on your customers if you desire, and tell this story.



MAKES PAPER MAKE MONEY FOR YOU

NASHUA GUMMED AND COATED PAPER COMPANY

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ALBANY, N. Y.
Hudson Valley Paper Company
ATLANTA, GA.
Whitaker Paper Company
AUGUSTA, ME.
Carter, Rice & Company
BANGER, Carter, Rice & Company
BOSTON, MASS.
Carter, Rice & Company
John Carter & Company, Inc.
BUFFALO, N. Y.
The Alling & Cory Company
CLEVELAND, OHIO
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Whitaker Paper Company
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The John Leslie Paper Company
CRAND RAPIDS, MICH.
Carpenter Paper Company
INDIAN APOLIS, IND.
Indiana Paper Company
JACKSONVILLE, KY.
The Rowland Paper Company
MACON, GA.
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CARPENTER PAPER COMPANY
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Houston, Tex.
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Los Angeles, Calif.
Lincola, Neb.
Lubbock, Tex.
Minneapolis, Minn.
Opden, Unit M. Oklis.

Lubbock, Tex.
Minneapolis, Minn.
Ogden, Utah
Oklahoma City, Okla.
Omaha, Neb.
Pueblo, Colo.
St. Paul, Minn.
Salt Lake City, Utah
San Antonio, Tex.
San Francisco, Calif.
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MEXICO, CENTRAL AMERICA,
SO. AMERICA, SO. AFRICA, and
the FAR EAST
American Paper Exports, Inc.
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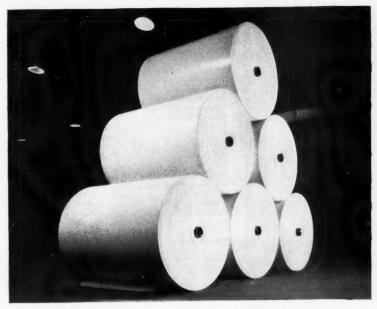
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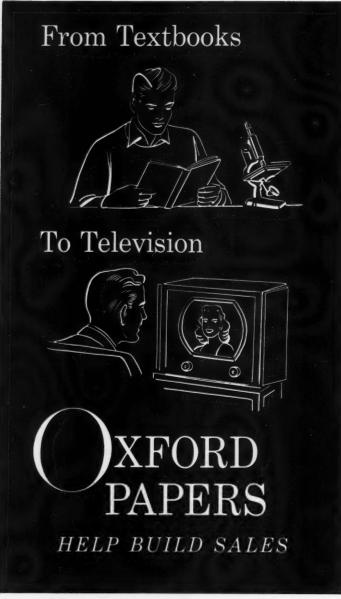
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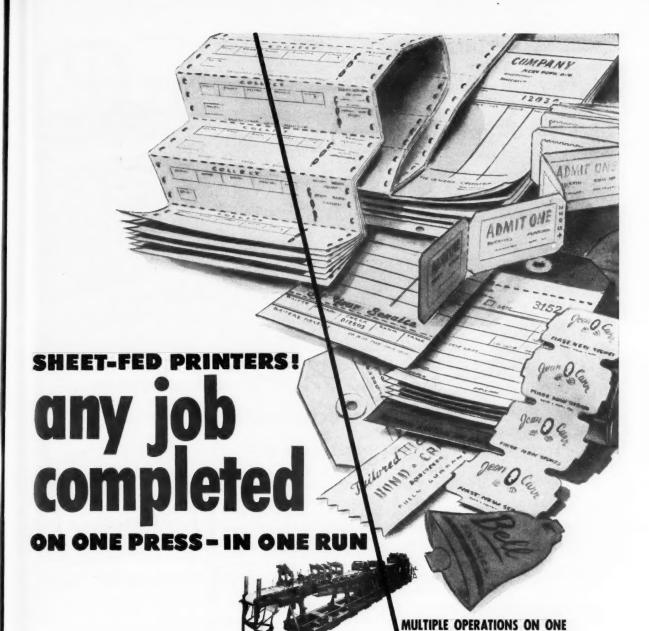


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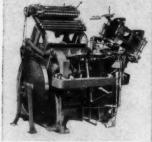
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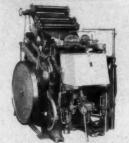
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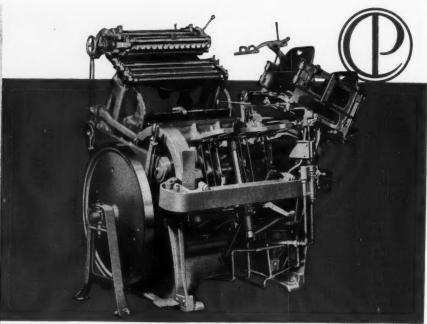












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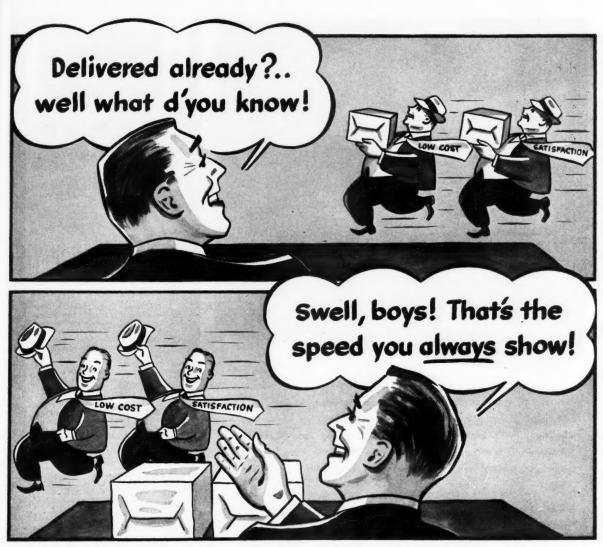
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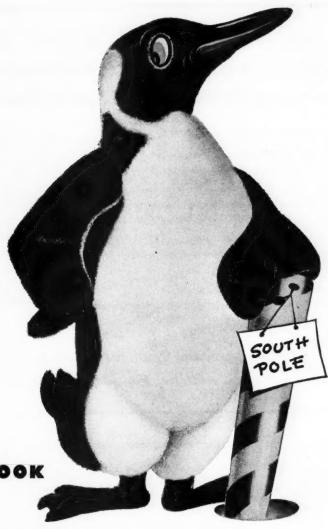


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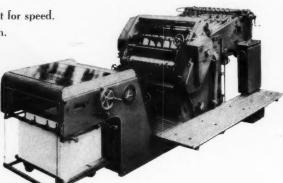
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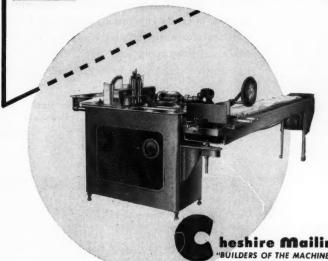
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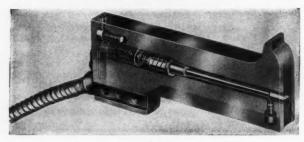
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DETROIT BRANCH 825 W. ELIZABETH

# TWO YEARS OF SUCCESSFUL OPERATION!



Phantom view of switch and operating rod built into left hand vise jaw.

. . . makes the *Star Automatic Quadder* a known factor . . . the repeat orders received tell the tale.

The Electro-Pump stop (patent pending) has had an important part in the outstanding success of the Star Quadder. It is an ingenious safety device minimizing the possibility of squirts. Pressing of center (operating) rod by full line of matrices closes circuit and energizes solenoid which actuates pump stop lever. Precision adjustment assures that a loose line will not cast.

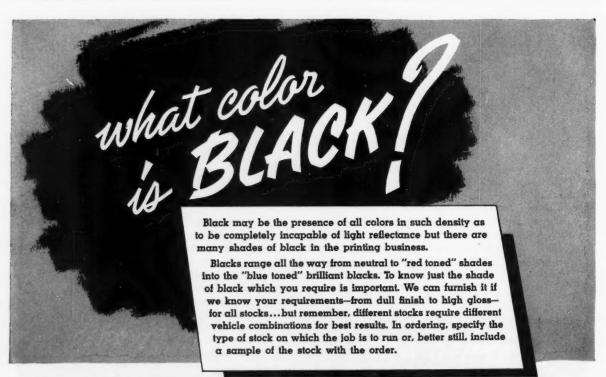
Model D Quadders are available for immediate delivery; the Model E (Synchronized for Mohr Saw) will be available soon.

PRECISION
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# a THOUSAND users can't be wrong



# Get good metal in the middle... Blatchford



Make sure your printing gives good impressions by making sure it gets them... from the metal that puts the ink on the paper.

Blatchford Metal is made to produce good impressions...on the finest of "coateds" or the coarsest of "news." It melts smoothly, flows freely, "gets" every bit of detail in the mat or matrix. Type, slugs and plates of Blatchford are true to the mold.

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Remember, metal is the "middleman" in your letterpress printing process. Be sure of its fine performance. Buy Blatchford.

Cut dross losses, get cleaner re-melts Use Blatchford Type Metal Flux

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### Blatchford

is the NATIONAL name for dependable metal... and the original name for "Honeycomb" base.

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Caps l. c. Comp.
18 pt. \$3.15 \$3.70 \$6.85
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New BULL DOG
TYPE HIGH
Typographic Machine

TOP QUALITY
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PRECISION CHARACTERS
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ALL ALLOY STEEL PARTS
PRECISION CONSTRUCTION

BUILT BY ROBERTS MASTER CRAFTSMEN

UP output . . . CUT costs . . . and WIN "the peace"

# Calling all old models

Calling IN all old models

Calling the 13,000 owners of old model BAUMFOLDERS (purchased prior to 1940) . . . to exchange them for the modern models . . . from the amazing NEW "Junior Jets" (14x20 and 17x22) to the most versatile Folder ever designed . . . (15 folding sections—more than any other Folder ever built) . . . the 30x46 . . . 60 BAUMFOLDER.

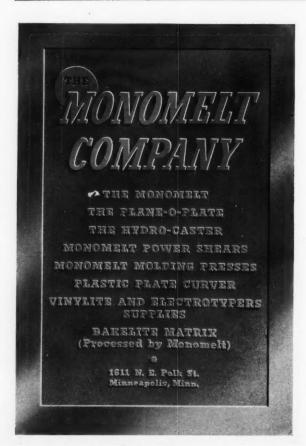
Of course, your old model BAUMFOLDER is undoubtedly giving you good folding...BUT, to cut operating costs to the bone...to increase profits to the "tree-tops," investigate the greater production, greater versatility and time-saving features of the MODERN MODELS. Even though your BAUMFOLDER has paid for itself many times over, we invite you to allow us to surprise you by the high price at which we will buy it back ... AND the LOW price of the Modern Miracle, Many-Purpose, Many-Profit Automatics ... No cash involved ... just MODERNIZE and pay part of the greater profit ... from this point on.

If you knew all the FACTS, you would WANT to act now.

### Russell Ernest Baum, Inc.

615 CHESTNUT STREET, PHILADELPHIA 6

UP output . . . CUT costs . . . and WIN "the peace"



## Convince Yourself WITH THIS TEST!

See How VOLAX Removes Printing Ink COMPLETELY without Irritating Skin!





Have him use VOLAX Hand Cleaner—ink's off in a jiffy— and safely too!

Your DOLGE Service Man will be glad to demonstrate

VOLAX is designed for heavy-duty skin cleansing. It contains mild soaps, water softener and friable volcanic ash . . . removes ground-in printer's ink with a gentle, non-irritating action. VOLAX is the specific cleaner for tough, ground-in dirt and ink discoloration.

VOLAX



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### 90 Day Competitive Test Proves H&H DRYSPRAY Best!

In a recent 3 month trial installation at a large paper board box plant in Milwaukee\*, H & H Dryspray was subjected to complete and rigorous testing along with 5 other competitors. At the end of the 3 month trial period, shop men and management selected H&H DRYSPRAY—THE ONLY DRYSPRAY THAT CAN BE OPERATED CONTINUOUSLY OR INTERMITTENTLY — for installation throughout their plant on 6/0 TC MIEHLES and 76 TC ROTARYS.

Lowers operating costs-increases production on letterpress or offset.

Write for details-mention size, make of press.

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A Baltotype exclusive newly created to furnish typographers with something new for their layout planning. (Cast in fullface caps and figures only, from 24 to 72 point.)

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voices, etc. Yes, you'll find

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patterns available.



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Machines are designed to do more

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Whatever your numbering problem, our completely equipped Engineering Department is ready to offer expert assistance in helping you solve it. Further information upon request.

**⊕** 7573

Number it Better with a Wetter

WEIER NUMBERING MACHINE CO. ATLANTIC AVENUE & LOGAN STREET . BROOKLYN S. H. Y. SOLD BY ALL DEALERS AND BRANCHES OF A. T. F., INC.

New and Scientific Method of Pricing Commercial Printing NEW REVISED EDITION \$1250 INDEX By RUTHVEN K. SMITH, Graphic Arts Secty.
Printing Management Engineer TABBED

★ Price tables and schedules based on years of research, and analysis.

★ Prices based on production records of many cities.

records of many cities.

\*\*A Covers copyfitting, paper stock requirements, composition, make-up, lockup and color separation, presswork, ink, cutting, trimming, bindery work, machine ruling, lithography pressuovk...plus other special sections.

★ Saves time, money, prevents errors and omissions, increases customer confidence

\*\*Production and hour-cost tables are based on stand-ards — not averages. Both Production-Time and Dollar-Values shown.

★ Indispensable for estima-tors, salesmen, plant mana-gers, students.

It's simple yet accurate. It's complete yet compact. It's scientific yet easy to use. There's nothing else like it on the market. More than 2,000 printing plant users in U. S. and Canada.

Contains tables for obtaining the amount of material required and the manufacturing costs of the various operations for both letterpress and offset printing.

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You don't have to be an estimator or an engineer to use "A Guide to Estimating Printing" . . . an hour or two of study, to become familiar with the tables, will enable anyone to determine the production time and price of printed jobs. Order your copy today.

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# *NOW READY!!*

20th CENTURY ULTRABOLD CONDENSED ITALIC 18, 24, 30 and 36 point

A BRAND NEW FACE! More sizes will be ready soon. We will deliver fonts of additional sizes as matrices are received from the manufacturer. Place your order now for sizes available and an advance order for other sizes you will need and we will send you fonts from first stock cast.

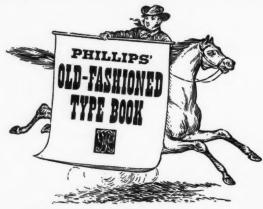
Prices	F. O. B. S	an Francisco	
Size	Caps	Lower Case	Boti
8 point 22	2A. \$1.20	45a, \$1.80	\$3.00
10 point 19	A. 1.25		3.10
12 point17	7A, 1.65	34a, 2.45	4.10
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Typefounders • Typographers 659 FOLSOM STREET

SAN FRANCISCO 7, CALIFORNIA

M&H Types also carried in stock by Harry W. Brintnall Co. and Western Newspaper Union Branches in Pacific Area



The best and the worst that can be said for this remarkable display of nineteenth-century type faces is that it should be placed upon the library shelves alongside 'Updike's Printing Types' . . sneives alongside Updike's Printing Types . . . Collectors of works on the history and practice of typography, historians of printing, printers and advertising men gifted with skill in selection will add this book to their shelves with satisfaction. -Lawrence C. Wroth, New York Herald Tribune

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• MILWAUKEE BRONZERS—For all presses. Some rebuilt units. C. H. Henschel Mfg. Co., W. Mineral Street, Milwaukee, Wis.

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Methods set up, or revised, for best offset quality. Troubles traced and corrected. Personnel trained in your plant. Special problems. Written re-

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FOR SALE

### FOR SALE

5/0 Miehle converted for die cutting with Alamo Lift

2/0 Miehle, Bed 43" x 56", with Dexter Pile Feeder and ext. del. No. 10 Babcock, 43" x 55", Dexter Pile

No. 10 Babcock, 43" x 55", Dexter Pile Feeder.

#41 and #46 Miehle Auto. Units with ext. del. and 1-F Dexter Pile Feeder

50" Seybold 'Precision' Auto Spacer
"C" Intertypes, #12835, #14869

C35M Intertype #7867

#14 Linotypes, Single Keyboard

Kelly Presses: #1 22" x 28" ##2 22" x 34"

B - 1" x 22"

22" x 28" Miehle Horizontal

27" x 41" Miller Major No. 5967 27" x 41" Two-Color Miller No. 7261 Seybold 3-knife Trimmer

Christensen Stitcher, 5 stations, 2 heads 1 Brackett 2 head stripping machine 14" × 22" C.&P. Auto. Unit 12" × 18" C.&P. Rice Unit

Details on Request

### NORTHERN MACHINE WORKS

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(Continued on next page)

## **HUNDREDS HAVE SAID:**



• Why continue to fuss with makeshift perforating rules or a slower

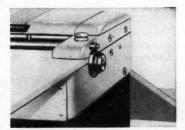
vertical perforator when the Rosback "Twenty-Two" Rotary Slot Perforator will give you a far better, more professional, faster job at less cost?

The Rosback "Twenty-Two" Rotary Perforator provides traditional Rosback accuracy and operating efficiency for the smaller plant. Here is a full-size machine that does a man-size job-takes a folio sheet either way through or up to 22 inches in width and does the finest quality slot perforating, both continuous and strike. If desired, at small additional investment, the Rosback "Twenty-Two" can be equipped to do snap out perforating, slitting, scoring and creasing with special heads. (Four standard lengths of slot perforations available; nine standard lengths of snap-outs.)

Equally important is the low price - so that the "Twenty-Two" is really designed for the smaller plant that must compete in spite of today's high costs.

PERFORATOR

When you see the Rosback "Twenty-Two" you'll say as hundreds have said: "That's the perforator for me!" Ask your Rosback Dealer for full details; or, write us for bulletins, specifications and price.

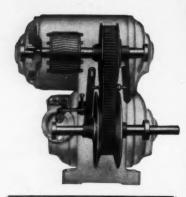


FAST, ACCURATE ADJUSTMENT Any length strike up to 20" is quickly set by simply turning a knob to inch-andfraction markings.

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LARGEST PERFORATOR FACTORY IN THE WORLD

# power modernization



Ask for your copy of pictorial bulletin No. B-63 showing Sterling Electric Power Drives Turning The Wheels of Industry.

# means

perfect speed control

### STERLING SPEED-TROL

OUTSTANDING FEATURES: Infinite speeds—positive speed regulation— fingertip control—large indicator positive pulleys—no springs—pro-tected—balanced design—stream-lined—Herringbone Rotor—through ventilation—shielded ball bearingsversatile mounting-NEMA dimensions—shock absorbing—quiet operation—rugged—compact—de-pendable—long life.

Plants: New York 51, N. Y.; Los Angeles 22, California; Hamilton, Canada; Santiago, Chile. Offices and distributors in all principal cities,

### Due to the liquidation of several large printing plants, we offer for immediate delivery the following excellent equipment:

35 x 45 Harris LSS offset press. 44x64 Harris LT two color offset

press.

44 x 64 Harris Model LF single color offset press.

41 x 54 Harris Model LB single color.

38 x 52 Miehle single color offset press.

28 x 42 Harris 58L.

28 x 34 Harris S6L

19 x 25 Harris Model CL.

17 x 22 Harris LSB (several in stock).

17 x 22 Harris LTG (post war).

17 x 22 Model MA Webendorfer.

36 x 48 Harris 57L.

22 x 34 Harris 55L.

Webendorfer Perfecting press, roll feed, taking 81/2" roll. Speed up to 20,000. Post war.

14 x 20 Model 2066 Multilith. 40" Wesel dark room camera.

Lanston Vertical plate coating machine, 50 x 56.

Sweigard Ideal Vacuum Frame,  $57\frac{1}{2} \times 71\frac{1}{2}$ , inside channel.

27 x 41 Miller two color automatic, late four track.

No. 3/0 Miehle two color automatic

Two 1/0 Mighle two color automatics 22 x 28 Miehle Horizontal.

31 x 41 No. 4 four roller Miehle

22 x 34 Pony Miehle automatic unit. No. 1 and No. 2 Kelly and Style B

Specials. Miehle Verticals-Model V-36, V-45, V-50.

We give you every assurance that the above are fine machines - worthy of being in any printing plant in the United States. Don't delay. Act now!

### TURNER PRINTING MACHINERY, INC.

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Detroit, Michigan 500 W. Congress Woodward 3-8269

Classified Buyers' Guide (continued) FOR SALE (continued)

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New and Precision Rebuilt **Printing Machinery** 

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• FOR SALE: Late Model 14 Linotype. Serial No. 49464 being replaced by more versatile machine. Machine is in excellent condition, has wide auxiliary, metal feeder, gas pot. \$4000 and worth every penny of it. Also Model 289 rotary fed 22 x 28 Baum automatic folder in good condition. Being replaced with larger unit. A good buy at \$1000 F.O.B. our plant. Can be seen operating on our floor until larger unit arrives. THE MISSION TIMES, MISSION, TEXAS.

(Continued on next page

Classified Buyer's Guide (continued) FOR SALE (continued)

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### STOCK CUTS AND STOCK PHOTOS

Request Cutalog 86 from COBB SHINN today!

This sixty-four page size, 9 x 12, plastic bound Cutalog contains ideas to illustrate the printed message for greater effectiveness and sales ap-

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### PRINTING INKS Their Chemistry & Technology

By CARLETON ELLIS

568 pages of profusely illustrated text giving usable information for printers, lithographers, chemists.

THE INLAND PRINTER . CHICAGO 6

• 2 rev. pony Whitlock press, bed 25 x 28, with motor. Ex. cond. Chgo. area. \$500 our floor. Box J-1450, Inland Printer, 309 W. Jackson,

(Continued on next page)

# The ABC's of TELETYPESETTER OPERATION



Hundreds of publishers and printers have learned that dependable, mechanical Teletypesetter equipment can increase type production by as much as 50% to 100%. You, too, can cut costs and improve shop efficiency with Teletypesetter. For details, write to:



Operator prepares tape on the Teletypesetter Perforator which has a compact touch system keyboard layout.

Tape is inserted in mechanical Operating Unit—and the composing machine goes to work automatically.

C The Teletypesetter - controlled composing machine turns out straight matter at hourly rate of 375 lines or more.



TELETYPESETTER CORPORATION 1400 Wrightwood Avenue, Chicago 14, Illinois

# ELETYPESETTER

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Smart, NEW, modern format and editorial and . . . eost to you cut in TWO

USE it exclusively in your area . . . to meet your WAR-time musts.

• For WAR takes your salesmen and printers. It keeps you For WAR takes your salesmen and printers. It keeps you from calling on and selling to ALL of your prospects and customers. They forget you. Without a house-organ, you sell and solicit only the printing buyers who buy "today." All others are side-tracked, forgotten, become strangers; they resent it, and . . . your competitors take them.

Use "The Notebook." It pinch-hits for the salesmen you can't set It sells mently an every present and evertomes."

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Commercial Printers, address:

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# Send Coupon for SPEED-FLEX Information

Orville Dutro & Son, Inc. 1206 Maple Avenue, Los Angeles 15, Calif.

Please send me immediately full information on the SPEED-FLEX, fastest and most modern job press for all types of form printing.

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\_ Zone \_\_\_ State\_ SPEED-FLEX presses are designed and sold exclusively by Orrill Dutro & Son, Inc., and are manufactured in the modern facilities of Western Gear Works, Lynwood, Calif., machinery and gear manufacturers for more than 50 years.



## The Accurate Table of All Around Use New CRAFTSMAN UTILITY TABLE

THE Craftsman Utility Table ... size  $22\frac{1}{2}$ "x $28\frac{1}{2}$ "... is the latest addition to the Craftsman line, and has achieved instant popularity with letterpress and offset printers.

The Utility Table incorporates the basic proven performance features of Craftsman Line-up and Register Tables, with added new features of importance. New patented Double-Edge Compression Straightedge holds copy firmly in place by simply pressing down handle at top. This assures accuracy of position and leaves both hands

free for taping work to flats. Double-Edge design also makes it possible to work from front or rear of table.

Here is an all around table . . . at a new low price for a Craftsman . . . that handles layouts, negative ruling, plate scribing, stripping, and the many functions required by lithographers and art departments. It is an ideal size, and may be also used as an extra table by present Craftsman users. You'll find that it is worth investigating.

### CRAFTSMAN LINE-UP TABLE CORP., WALTHAM, MASS. GEORGE H. CHARNOCK, JR., V.P.

PHILADELPHIA: Thomas R. Gallo 1311 Widener Bldg. CHICAGO: Paul M. Nahmens 719 S. Dearborn St.



CRAFTSMAN LINE-UP TABLE CORP. 57 River Street, Waltham 54, Mass. Without obligation, please send folder on new Utility Table. Classified Buyers' Guide (continued) FOR SALE (continued)

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### DO A BETTER JOB **10 TIMES FASTER**

Aligning heavy board to onion-skin — prior to cutting, printing, folding, binding, padding, punching, offsetting, etc. Twelve models available.

WRITE FOR LITERATURE

### SYNTRON CO.

575 Lexington, Homer City, Pa.

### Insist on Megill's Gauge Pins

for use on all Job Presses

MEGILL'S PATENT

Spring Tongue (R)
GAUGE PINS \$1.80 doz. with extra Tongues

MEGILL'S PATENT Original Steel ® GAUGE PINS

HEAD 12. 15 OF 18 PT HIGH - 75¢ DOZEN

Remember. ONLY MEGILL MAKES SPRING TONGUE GAUGE PINS.

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### EDWARD L. MEGILL COMPANY

The Pioneer in 1870
763 ATLANTIC AV., BROOKLYN 17, N. Y.

• BOOKBINDERS' MACHINERY: New model National book sewing machines; also rebuilt machines. Write for particulars. Joseph E. Smyth Co., 720 So. Dearborn St., Chicago. (Continued on next page)

### SPECIAL NUMBERING MACHINES FOR ALL REQUIREMENTS



WRITE FOR SPECIAL FOLDER

AMERICAN NUMBERING MACHINE CO.

ATLANTIC AND SHEPHERD AVES .. BROOKLYN, N. Y BRANCH-105 WEST MADISON STREET, CHICAGO. ILL

# MAKE YOUR OWN Exclusive

Platens 11 x 13 in.

# Rubber **Printing Plates**

Extreme Precision **Tremendous Power** Maintained Pressure Power Economy Connects to 110 V. Thermostatically Controlled

### The Eva-Press

Write for Literature
AMERICAN EVATYPE CORPORATION Deerfield, Illinois

Classified Buyers' Guide (continued) FOR SALE (centinued)

### HOW TO BE **BELT HAPPY** USE BEALL'S PINK "10-W" BELTS

They're Pre-Stretched!

Beall's Belts are better built—of a secret PINK composition (no rubber) strengthened by Sea Island Cotton and rayon.

OIL WON'T AFFECT THESE BELTS! Guaranteed not to stretch more than 1"break (Six months service Guarantee or money back).

\$10.40 POSTPAID NOT AVAILABLE FOR LATE MODEL V-50
Order today and be belt happy tomorrow.

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RICHARDS' EXPERIENCE PAYS OFF Let us help you sell Die-Cut Printing
Ask for Goose Book full of ideas
A. RICHARDS CO., Kalamazoo, Mich. J. A. RICHARDS CO.,

- COUNTRY PRINTERS ATTENTION— Campbell flat bed newspaper press, sheet size 30 x 44. Printed weekly paper for last 24 years, increased size requires larger equipment. Also folder (Brehem Leipzig) used with press. Sold as unit or separately. The Enterprise, 4810 Yearse St. Willewsday. Oct. as unit or separately. The Yonge St., Willowdale, Ont.
- FOR IMMEDIATE SALE—Two 36 x 48 Two Color Harris Offset Presses. AC current. Serial numbers 102 and 104. Presses now in op-eration. McGill Company, 501 Park Avenue, Minneapolis 15, Minnesota.
- AN EXTENSIVE LINE of new and rebuilt printing equipment on easy terms. Write for free list. Missouri Central Type Foundry, Wichita, Kans.

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• SALARIED POSITIONS, \$3600 to \$30,000. This confidential service for outstanding men who desire a new connection, will develop and conduct preliminary negotiations without risk to present position. Send name and address for details. Tomsett Associates, 1208 Berger Bldg., Pittsburgh 19, Pa.

(Continued on next page)



Developed especially for litho and multi-lith. In all qualities, similar to "33" Ink Conditioners for normal inks. Saves time in wash-up. Ink flow is uniform. Fewer reruns are necessary.

Imparts to light-bodied inks the same qualities provided by "33" Ink Conditioners for normal inks. Gives greater overall print quality. Unexcelled with gloss inks. satisfaction, return the unused portion at our

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WE 600

INK CONDITIONER 11.5

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While the supply lasts, we will furnish without charge an 8-oz. glass graduate for measuring ink conditioners.

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IDEAL FOR MULTICOPY FORMS TUB-SIZED FOR MAXIMUM PRESS PERFORMANCE DISTRIBUTED BY LEADING PAPER MERCHANTS FLETCHER PAPER COMPANY



Classified Buyers' Guide (continued) HELP WANTED (continued)

### WANTED

Experienced operator and floor man. Permanent situation if qualified. Housing available. 40 hour week with some overtime. Good wages. Write or wire

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Texarkana, Texas

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### THE INLAND PRINTER

FIRST PUBLICATION OF ALL THE PRINTING INDUSTRY

VOLUME 126 • FEBRUARY, 1951 • Number 5

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